VOLUME 45, NUMBER 2, November

JOURNAL OF *Home Economics*

Journal of Home Economics, Vol. 45, No. 2

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½ cup KARO Syrup, Red or Blue Label
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¾ cup sifted all-purpose flour
⅓ cup confectioners' sugar

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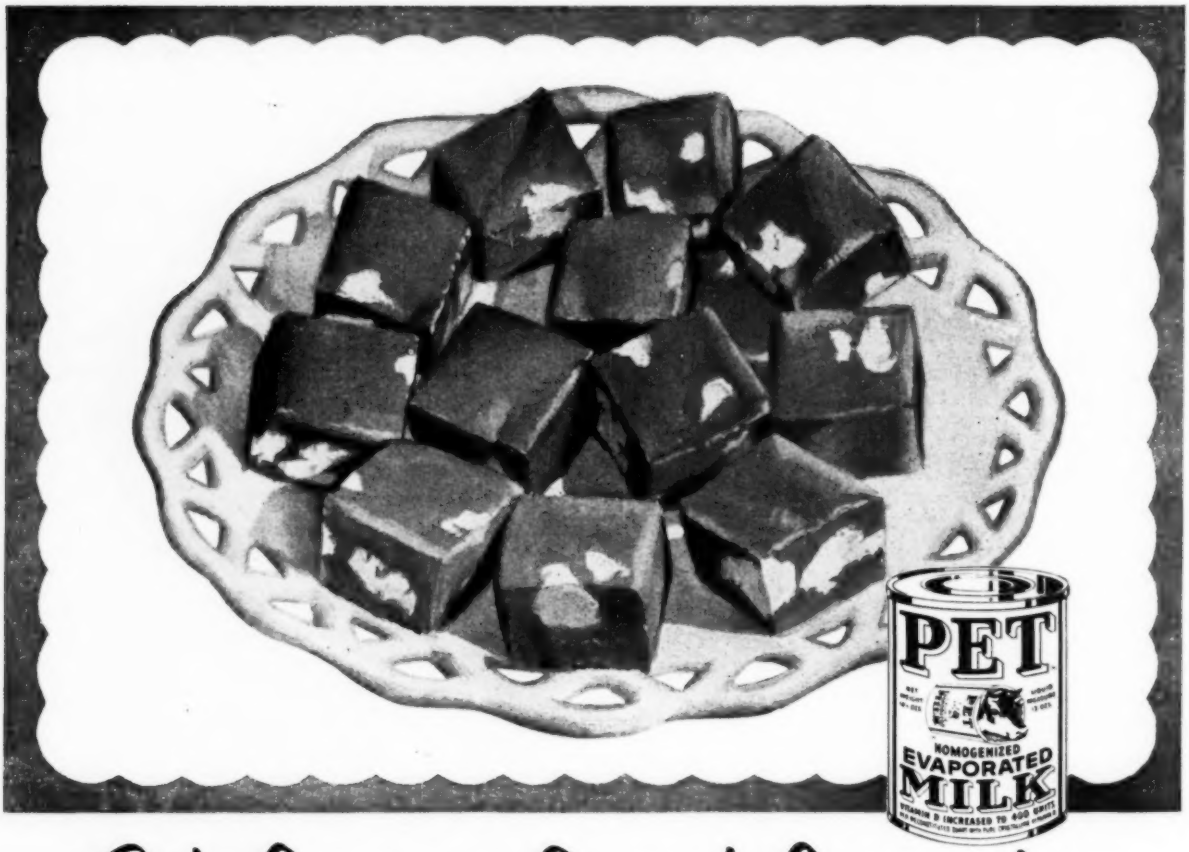
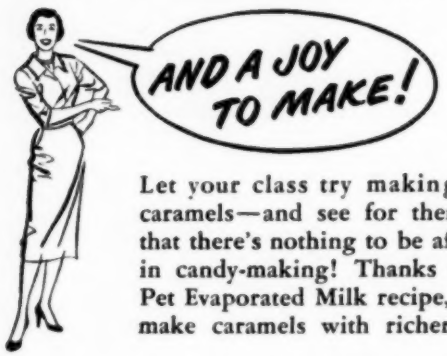


Rich, Creamy-Smooth Caramels...



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1. Heat until butter melts a mixture of... 1 cup Pet Evaporated Milk
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4. Stir in milk mixture gradually so that mixture does not stop boiling. Cook and stir until candy reaches firm ball stage again.
5. Remove from heat and stir in..... 1 teasp. vanilla
   1 cup unsalted nuts, broken
6. Pour into greased 8-in. square pan. When firm, turn out on cutting board or waxed paper and cut into inch squares. Makes 5 dozen.

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OFFICIAL ORGAN OF THE AMERICAN HOME ECONOMICS ASSOCIATION

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Washington News

10 Per Cent More in '53-'54

Ten per cent more in '53-'54—and more, too, we hope—goes our AHEA membership chant this year.

To state presidents, to state membership chairmen, to college deans, to state leaders of home economics extension work, to state and city supervisors of homemaking education, to chairmen of divisions and departments, and to *you*, and *you*, and *you* goes the word

10 per cent more in '53-'54!

Your *colleagues*, your *friends*, your *graduating seniors* belong in the

10 per cent more in '53-'54.

This is all by way of saying that AHEA's membership drive is under way.

State associations are spearheading the drive; AHEA headquarters is providing ammunition; and every organized group of home economists within the state associations has been asked to work within her group for

10 per cent more in '53-'54.

The campaign, approved at the 1953 annual meeting, was set off from AHEA headquarters and the state associations in early October.

Timing of the drive aims at bringing in the 10 per cent more as early in the fall as possible in order that each new member may begin at once to participate in the program of the state association and the AHEA.

Co-ordination of effort among all groups and individuals is directed principally toward

1. *Increasing the number of graduating seniors who join the AHEA*

Each AHEA member who works with young college women is urged to acquaint the seniors with the advantages of membership and the special rate available to the seniors for their first year out of school.

A graduating senior who is eligible for membership in the AHEA must be certified as a graduating senior by the head of the department of home economics from which she is graduating and must pay her dues before she leaves the campus. The special rate to seniors graduating from May 1 through August 31 for the first year following graduation is $3.50; midyear graduates pay $1.75 for a half-year's membership. Graduating seniors also pay state dues in conformance with state requirements.

2. *Recruiting new AHEA members from eligible home economists*

Each AHEA member is urged to take individual responsibility for two things: (1) get a new member for AHEA; (2) provide the state membership chairmen with names of eligible home economists in the community. In this way the state Association can compile a working list of potential members.

Remember that the Proposals for Action for the Association for 1953-54, adopted at the 1953 annual meeting, include this important *new point:*

Strengthen the professional spirit of the members of the Association. Initiate an active membership drive. Re-emphasize the Association's function as the professional organization of all home economists.

3. *Holding each year's members for the next year*

Each AHEA member is urged to make this point number one priority for every day in the year. Statistics assembled at AHEA headquarters on the number of younger members who leave the Association with fewer than five years of membership make the importance of real work on this point only too clear. Recognition by other members, being given something to do, being made to feel a part of the Association are ways to help *new* members become *old* members. Invite new members to professional meetings; encourage them to join committees and working groups within the department or division of their choice; encourage them to attend meetings of the state association and the annual meeting of AHEA. It's in California next year, you know!

Let's be there with 10 per cent more.

To all AHEA members, then, we say, a fine year ahead for all of you, your friends, your colleagues, and your graduating seniors

our 10 per cent more in '53-'54.

ELIZABETH SWEENEY HERBERT
President, American Home Economics Association

AMERICAN HOME ECONOMICS ASSOCIATION

Forty-fifth Annual Meeting, San Francisco, California, July 6 to 9, 1954

Headquarters: Civic Auditorium

VOLUME 45, NUMBER 9, NOVEMBER 1953

JOURNAL OF *Home Economics*

Eighth International Congress on Home Economics

Mildred Horton

Miss Horton, AHEA's executive secretary, attended the Eighth International Congress on Home Economics in Edinburgh, August 12 to 18, 1953, as the official representative of the American Home Economics Association. She was also named an official member of the United States Delegation by the U. S. Department of State. She was chosen by the North American Group to serve as reporter general for a sectional meeting on Theme V: Careers for Which Home Economics Training Is a Preparation.

ON the morning of August 12, 1953, more than 1300 home economists from 52 countries gathered in the beautiful auditorium in McEwan Hall, University of Edinburgh, to attend the opening session of the Eighth International Congress on Home Economics. The number of individuals attending the Edinburgh Congress and the number of countries represented were in round numbers almost twice those at the Seventh International Congress in Stockholm in 1949. Almost 100 members of the American Home Economics Association attended the Edinburgh Congress. This number is also more than twice the number of Association members at Stockholm in 1949. These facts seem to point up the increased worldwide interest of home economists in coming together to discuss common problems and in finding ways of working together for their solution.

Fédération internationale de l'Enseignement ménager

Since the AHEA is affiliated with the International Federation and since so many members now attend the Congresses, it seems wise to include in the early part of this report a bit about the Federation itself. Joseph Piller, president of the Federation, sketched its history very briefly at one of the plenary sessions in Edinburgh. The Federation was organized in 1908 in Fribourg, Switzerland, where its headquarters has always been located. President Piller reported that the Federation was organized for the purpose of making home economics available to girls of all classes since it had in the past been available only to girls of the richer classes. Our own record in the January 1916 JOURNAL OF HOME ECONOMICS says: "The Fribourg office aims to be an international clearing house for material on home economics subjects."

The goal of the Federation is to encourage, with the assistance of public agencies, scientific and professional associations, and individuals, the development of home economics in all countries. The goal is furthered chiefly by two Federation activities, namely: the publication of a quarterly bulletin *l'Enseignement ménager,* which is sent to all individual and group members, and the sponsorship of an international congress on home economics in co-operation with an affiliated national organization of the country in which the congress is being held.

The congresses held since the organizing conference in 1908 have been in the following cities:

Ghent, Belgium—1913	Copenhagen, Denmark—1939
Paris, France—1922	Stockholm, Sweden—1949
Rome, Italy—1927	Edinburgh, Scotland—1953
Berlin, Germany—1934	

Federation membership includes official representatives of governments granting an annual appropriation to the Federation, persons, institutions, associations, and administrations who pay annual dues. AHEA affiliated with the Federation in 1916 and has continued to give its support and to encourage its members to attend the Congresses. Some American home economists hold individual membership in the Federation, but the United States government is not one of those granting an appropriation to the Federation.

During 1953 the Federation indicated its interest in advancing the purposes of the Food and Agriculture Organization of the United Nations and as an

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A group of AHEA members, friends, and former international students at the Edinburgh Congress

international nongovernmental organization was given special consultative status by FAO.

The officers of the Federation—President Joseph Piller, professor of law, Fribourg University; Secretary-general Mlle J. Plancherel; and Assistant Secretary J. Dafflon—compose the present staff of the Federation headquarters office and direct the work of the Federation.

The organs of the Federation are:

1. The plenary assembly of Federation members
2. The permanent international committee made up of delegates of (a) governments and (b) associations which make contributions to the Federation plus one representative from countries not included in *a* and *b*. (This committee nominates the executive committee and acts in place of the plenary assembly between Congress meetings.)
3. The executive committee, which is composed of three to five members who are charged with the responsibility of establishing the rules of order of the Federation, determining the budget, and directing the use of funds
4. The working committee, which is composed of a representative of the North American countries, the Anglo-Saxon countries, the Latin countries, the Northern European countries, the countries of the East and Middle East, and the *Fédération internationale de l'Enseignement ménager* (Each group of countries may propose to the committee subjects for inquiries, statements, research, reports, and so forth on questions of interest to the Federation.)
5. The international office of home economics, which promotes the goal and directs the work of the Federation.

Finances of the Federation

The president reported that membership dues approximate 2600 Swiss francs per year and that the total expenses of the Federation during a non-Congress year are about 6,000 Swiss francs and from 9,000 to 10,000 when a Congress is held. He further stated that the Canton of Fribourg makes up the difference.

Participants in the Edinburgh Congress

The countries on the official list were: Australia*, Austria, Bahamas*, British Guiana*, Canada*, Channel Islands, Cyprus*, Denmark*, Dominican Republic, Egypt*, Eire*, England, Finland, France*, Germany*, Gold Coast*, Greece, Holy See*,Iceland, Iraq, Israel, Italy, Japan, Jugoslavia, Kenya*, Luxembourg, Malaya*, Netherlands*, New Zealand, Nigeria*, Northern Ireland, Norway*, Philippines, Portugal, Scotland*, Seychelles, Sierra Leone*, Singapore*, South Africa, Swaziland*, Sweden*, Switzerland, Tanganyika, Thailand*, Turkey*, Uganda, United States*, and Wales. [* Denotes official government delegates according to list of members issued by the Congress.]

The Food and Agriculture Organization of the United Nations (Rome, Italy) and the Mutual Security Administration (European office, United States Embassy, Paris, France) were represented by home economists working with FAO and MSA.

The United States participants named by the Department of State as official members of the United States delegation to the Congress were Rua Van Horn, Mrs. Zelta Rodenwold, and Mildred Horton.

The AHEA official delegates were Mildred Horton (leader), Bess Heflin, Leone Ann Heuer, Phyllis B. Morrison, and Estelle Nason, with Onah Jacks and Frances Urban as alternates.

Queen's Patronage

Her Majesty the Queen granted her patronage to the Congress and accorded hospitality to the Congress by way of a garden party at Lauriston Castle. Greetings were sent to Her Majesty by the Congress members at the opening session of the Congress. She acknowledged the greetings and in turn extended her best wishes to the Congress and its members.

Congress Theme and Program

The general theme for the Eighth Congress was "Home Economics at the Service of Life: Its Contributions to Individual and Social Progress."

The six subthemes of the program were as follows:

I. Training of Home Economics Teachers in the Different Countries
Psychological, pedagogical, moral and social foundations; scientific background, practical training, international exchange of teachers, fellowships and scholarships; the establishment of centers of information and research

II. Practical Methods in Home Economics Teaching
Psychological bases; some results of day-to-day experiences

III. How Can the Housewife Get Help in Her Domestic Tasks?
The housewife at home; the housewife professionally occupied outside the home

IV. The International Aspects of Home Economics: FAO and Its Contribution to Home Economics in the World

V. Careers for Which Home Economics Training Is a Preparation
At the service of the family, of education, of health and hygiene, of information and public relations, of the community

VI. Home Economics Courses for Adults
Their adaption to this sphere or environment; experience gained in different countries

Months prior to the conference the international office sought the assistance of affiliated national organizations and individual members in obtaining program suggestions and later in obtaining papers on the subjects to be discussed at the plenary and sectional meetings. The theme with its six subthemes was developed through *general reports* which were prepared from contributions made by interested individuals and representatives of assotions in many countries. A short time before the Congress, each member received a booklet which contained all general reports included on the agenda.

French, German, and English were the official languages of the Congress. Reports were given in the native language of the reporter and translated into the other two languages by interpreters.

Business of the Congress

Invitations were extended on behalf of the French government for the Ninth International Congress to be held in Paris and on behalf of the Canadian and American Home Economics Associations for the next Congress to be held in the United States. Action was postponed until the meeting of the International Permanent Committee in Fribourg, Switzerland, in September 1954.

Other points of business, including revision of the constitution and bylaws of the Federation and rules of the Congress, were likewise postponed.

Resolutions of the Congress

At the final Congress session, the Federation president presented "Resolutions for Voting." These were based on the six subthemes and were accepted by the assembly. The resolutions reflected the predominant interest of the Congress in the area of training teachers of domestic science and in the preparation of girls for domestic work and expressed a recognition of the value of sharing homemaking tasks among all family members.

Members of the Congress were invited to submit additional resolutions for later consideration. Since in the view of the leader of the American delegation, the original resolutions as accepted did not seem to include recognition of other careers in home economics as these careers are recognized in North America and in several of the Northern European countries, the leader of the AHEA delegation submitted the following additional resolution:

The Congress recognizes that there are many careers for which home economics is a preparation. Home economists in these various areas—industry, commerce, research, institution management, and so forth—work toward the improvement of home and family life for individual and social welfare.

Education for these various careers within the home economics profession should be basically the same as for the teaching of home economics. A sound scientific foundation, a broad cultural base, flexibility of methods, and an understanding of the people—their needs, interests, and abilities—are as essential to success in these careers as in teaching. Specialized courses may also be helpful; they are essential in some areas.

Requests for recognition by the Congress of these careers were made by several members of the Congress. Consideration will be given to these requests since there seems to be

AHEA international scholarship students attending the Edinburgh Congress included (left to right) Jeanette P. Burema, Netherlands; Joan A. Smith, England; and Odette Dutrieux, France; and also Durga Deulkar, India (1953-54 student); Mona Doss, Egypt; Ingeborg Eidsaether, Norway; and Hanna Karttunen, Finland.

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U.S. home economists from posts abroad meet at Eighth International Congress. Left to right: Margaret Fedde (Nebraska) from Lebanon, Catherine Cleveland (Maryland) from Lebanon, Helen Smith (Maryland) from Lebanon, Mary Frances Dawson (Washington) from Egypt, Mrs. Arline C. Rogers (District of Columbia) from Lebanon, and Mary Inez Holland (Texas) from India.

an increasing number of such careers in many of the countries represented at the Edinburgh Congress.

Exhibits

Attractive small exhibits, set up by delegations attending the Congress, displayed books, pamphlets, and handiwork. The United States exhibit included a selection of AHEA publications and representative publications from government agencies employing home economists arranged against a background featuring pictures of careers in home economics in the United States.

The Lighter Side

To leave the impression that the Congress was all work would be far from right. The organizing committee included tours for pleasure, tours for education, morning coffees, and a civic reception where we were guests of the Edinburgh "city fathers," and the garden party at Lauriston Castle. An all-day boat trip down the River Clyde, with lunch and high tea aboard, gave us an opportunity not only to see Scotland's beautiful countryside but to visit with old friends and to make new friends. Loch Lomond, the Trossachs, and Loch Katrine were favorite spots for many of us. The Edinburgh College of Domestic Science, the Glasgow and West of Scotland College of Domestic Science, together with many institutes, federations, associations, and industries, held open house and had comprehensive exhibits of their work.

The Scotch were friendly and hospitable. Many of us were invited into Edinburgh homes for after-dinner coffee, Sunday tea, or for dinner. One of the Congress members seemed to express the warmth of our welcome and a note of regret in our leaving when she gave me the Aberdeen good-by:

"Glad to meet
Sorry to part
Happy to meet again."

Special thanks are due to the organizing committee for the clock-like perfection of its planning, for the pigeonhole system for exchange of notes, for the many excellent pamphlets prepared especially for the Congress members, and for the warm hospitality which pervaded the whole of Edinburgh.

AHEA Members Who Attended the Congress

The following members of the AHEA attended the Eighth International Congress on Home Economics:

Alabama–Mrs. Ruth D. Morley, Marion W. Spidle
Arizona–Lola Ellsworth
California–Anne Lindsay, Phyllis B. Morrison, Barbara Premo, Mrs. Barbara Reid Robson
Colorado–Martha Hull
Connecticut–Adeline M. Hoffman
District of Columbia–Mrs. Martha S. Fry, Mildred Horton, Mrs. Zelta F. Rodenwold, Frances Urban, Rua Van Horn
Hawaii–Mrs. Helen B. Cartwright
Illinois–Leone Ann Heuer
Indiana–Cecilia Schuck
Iowa–Dorothea Gienger, Mary S. Lyle
Kentucky–Betty J. Downer
Maine–Mrs. Rena Bowles, Estelle Nason
Massachusetts–Doris Buchanan, Marion L. Cronan, Helen Croshere, Elaine M. Sullivan
Michigan–Esther Everett, Irma Gross
Minnesota–Gudrun Carlson, Jane Conzemius, LaDonna Eckstrom, Gladys G. Jacobson, Mary M. Keenan, Mrs. Edithe J. Lick, Ellen Soma, Louise A. Stedman, Frances M. Watts
New Jersey–Kathleen Rhodes
New York–Mrs. Georgina Carson, Mrs. Dorothy Day, Faith Fenton, M. Eunice Hilton, Leila Kaplan, Sybil Frances Kimbrig, Elizabeth J. Knapp, Karla Longree, Irene Patterson, Eloise Voss
North Carolina–Bessie McNiel, S. Virginia Wilson
Ohio–Florence E. Birks, Gladys Branegan, Lillian B. Nelson
Oklahoma–Mrs. Starr Otto Doyel, Deborah Long, Lela O'Toole, Blanche Portwood
Oregon–E. Alta Garrison, Mrs. Winnifred K. Gillen, Mrs. Alice F. Wieman
Pennsylvania–Ruth L. Husted
Texas–Faye D. Bible, Mrs. Verna Garrard, Bess Heflin, Mary I. Holland, Onah Jacks
Washington–Gladys Anderson, Inez M. Eckblad, Nettie C. Esselbaugh, Louise Gentry, Marian Lee, Ruby Knudson, Agnes Sunnell
Wisconsin–Ruth Schaper, Catherine Spence
Wyoming–Ruth Bumpas
From countries abroad–Catherine E. Cleveland (Lebanon), Lt. Betty S. Elliott (England), Margaret Fedde (Lebanon), Mrs. Mathilde C. Hader (Norway), Katharine Holtzclaw (France), Major Frances M. Horr (Germany), Helen I. Smith (Lebanon), Mrs. Loa D. Whitfield (Pakistan)

A College of Home Economics in Israel

Elda Robb

Dr. Robb is the director of the School of Home Economics of Simmons College, Boston. She was granted a leave of absence from Simmons in 1952-53 to accept an FAO assignment in Israel.

IN Jerusalem, on April 9, 1953, a College of Nutrition and Home Economics was officially opened. The Food and Agriculture Organization of the United Nations co-operated with the government of Israel in this undertaking, the object of which was to establish a professional training program at the college level. The project seemed a particularly appropriate one for Israel where trained personnel is available to carry on the college program, once it is established. Leadership in the fields of nutrition and home economics comes primarily from women trained in European and American universities who are now living in Israel. Their fields of specialization vary, including science, home economics, and education. Short courses had been offered in the past to prepare professional workers for the schools, hospitals, and other institutions and for adult education. Although these short courses helped to meet the emergency, they were not building adequately for the future. There was need for a strong local training program of college level, if the young people of Israel were to be prepared to carry on professional work successfully and to assume positions of leadership—and if home economics were to develop as it should and make its maximum contribution to the homes of Israel.

It was my good fortune to represent FAO as home economics specialist in Israel during the winter of 1952-53 and to assist in the organization of the College. My first job was to become acquainted with the country. To the uninitiated, Israel is a strange mixture of East and West, old and new, ancient and modern, Oriental and Occidental. It is the Middle East, the Holy Land, and a modern pioneering country engaged in one of the most interesting sociological experiments of all times. Stories of the Bible come to life as one climbs the Judean hills, visits the Tomb of David, ponders on the beauty of the Sea of Galilee, or watches the sun rise over the Mountains of Moab. From Dan to Beersheba one walks on holy ground. It is difficult for the newcomer to realize that these places of great historical and religious significance, such as Nazareth, are also part of the work-a-day world of the present. Life goes on as always, but it has a touch of unreality for one unaccustomed to living in an ancient and a holy land.

Historical Background

This tiny country has had a long and turbulent history. In early days Palestine was the crossroads of the trade routes between three continents, connecting the Nile valley with the Euphrates, Central Asia with Egypt, India with Greece and Rome. Under Hebrew and Roman rule the country prospered. At the time of Christ it is estimated that the population was at least 3,000,000 and that the country was self-supporting. Hillsides were terraced, and agriculture had reached a high stage of development. It was the land of "milk and honey."

From the seventh century on, however, the country declined, material and cultural resources became extremely limited, and health conditions correspondingly bad. Farming was abandoned, trees were cut down, and much of the country became a barren and desert land. By 1850, the population was no more than 200,000, most of the people living under very poor conditions with no schools, no medical care, and little hope for improvement. The land of milk and honey had disappeared and the country was described as "one of the most backward provinces of the Ottoman Empire."

In 1920 a new era began when Britain was given a mandate for Palestine based on the famous Balfour Declaration supporting the establishment of a Jewish National Homeland. Gradually over the years the purposes as embodied in the Declaration were, at least partially, carried out. At the termination of the mandate in 1948, amid full-scale war which had developed between Jews and Arabs, the new state of Israel was born. The first pronouncement following the formation of the new government was the right of every Jew to return to Israel. During 1949 immigration reached a peak of 260,000—over 700 a day. Since the estab-

lishment of the state the population has more than doubled—785,000 to 1,630,000—about 40 per cent now being Oriental in background and about 60 per cent Occidental.

The Modern Country

The problems facing the new country are stupendous. A stable, homogeneous group would find the establishment of a state difficult. The problem becomes particularly acute, however, in a country where people come from the four corners of the earth, differing in social customs, sense of values, living habits, and language. As in the early days in the United States, many different cultures are being combined. We were called a "melting pot." The Israelis are quick to point out that they then are a "pressure cooker"—changes having to be made much more rapidly and in a much smaller space. Tensions are still further aggravated by restrictions made necessary because of shortages of certain foods and other commodities.

Food is particularly important in Israel. About 70 per cent of the calories are imported. In an effort to achieve a better trade balance, a strict limitation has been put on the importation of certain foods, resulting in severe rationing. During the winter of 1952-53, for instance, the ration of meat was slightly more than one-half pound per person per month; sugar, 2.2 pounds per person per month; and eggs, 2 per person per week. Animal proteins must come primarily from fish and milk or milk products. Standard bread (dark) is unrationed and subsidized by the government and is therefore relatively inexpensive. It is enriched with soy bean meal, calcium carbonate, and riboflavin. Fruits and vegetables are also usually unrationed except when out of season.

Frequent studies of food intake have been made, the last one in 1951. At that time the average calorie intake was about 2400 and animal protein, about 30 grams. In the United States the average intake of animal protein is 60 grams, twice that of Israel. In other countries of the Middle and Far East, however, with the exception of Turkey, the average intake of animal protein ranges from 4 to 13 grams, less than half that of Israel.

An interesting comparison of the figures of 1951 with those of a survey made in 1946 shows that whereas the well-to-do in 1946 consumed 119 per cent more milk, 141 per cent more eggs, and 128 per cent more meat and fish than the lower income groups, the corresponding figures in 1951 were 35 per cent, 35 per cent, and 69 per cent, respectively. Commenting on this change, Dr. Guggenheim of the Medical School of Hebrew University says: "This greater degree of social justice in food distribution by leveling out the extremes in consumption at both ends of the scale is a result of the nutrition policy of the Government—controlled distribution of essential foods, price control, subsidies for some basic foods, and special rations for pregnant women and children." And he adds that in his opinion: "This is one of the greatest achievements of the State and one of the major contributing factors to the improved health situation."

Home Economics in Israel

Home economics work in Israel began as early as 1930 when the Hadassah, the American Women's Zionist Organization, initiated a program for the teaching of food preparation through a school lunch program in the elementary schools. Training courses were also inaugurated at this time to prepare teachers for the field. Under the leadership of Sarah Bavly nutrition activities expanded rapidly. When in 1950 the program was turned over to the government, it included, in addition to the school lunch, the teaching of home economics in the schools, adult education, professional training, guidance for the dietary departments of institutions, including hospitals, factory canteens, restaurants, and institutional homes. Although at first the responsibilities were divided among three ministries of the government, on April 1, 1953, all services were unified in the nutrition department in the Ministry of Education. The College of Nutrition and Home Economics, as well as the Teachers Colleges, are also a responsibility of this Ministry. This unification of services is a big step forward and makes possible greater economy, less duplication, more complete coverage of the field, and more efficient use of trained professional personnel and available physical facilities.

Attendance at elementary schools in Israel is free and compulsory for children from six through thirteen years of age. Secondary schools are private, voluntary, and expensive. Not more than 10 per cent of the young people attend secondary school, with slightly fewer girls than boys; consequently, not more than 900 girls graduate each year. Immediately following secondary school, two years of military service are required of both men and women. For students who go to the university, army service may be postponed; for nurses, the training which is partly in military hospitals may be substituted for the regular military service. For all other professions, army service either interrupts

Alfred Bernheim photographer, Jerusalem

Women who have come to Israel from other countries learn about new foods in Israel at the Hadassah Health Center in Jerusalem.

Food from the garden is used for the school lunch. Children from the seventh and eighth grades prepare the lunch under the guidance of the teacher.

or must be completed before beginning professional training. During the two years in the army, many young people marry or make plans for marriage. Consequently, the number of secondary school graduates contemplating further study is limited; and the picture would be dark indeed were it not for the fact that practically every married woman works and that the young people of Israel are interested in preparing themselves professionally. They are a serious-minded group, eager to take advantage of available opportunities.

The curriculum of the College is planned as a three-year program, a certificate being granted at the completion of two years of study. The student is then expected to work for a few years before returning to complete his study for the baccalaureate degree. The major emphasis in the curriculum at the present time is placed upon preparation for work in the foods and nutrition field. As the College develops it is hoped that home economics may be interpreted more broadly and include more of the activities which are part of the homemaker's responsibility.

The curriculum includes basic courses in the physical, biological, and social sciences, foods, nutrition, and home management. Based on these subject-matter courses, professional specialization in institutional management and education is built. The schedule is a heavy one, courses for the first semester including chemistry, physiology, psychology, Hebrew, English, foods, and home management. One full day per week throughout the two years is devoted to observation and participation in schools, hospitals, and adult education programs. In form and outline the curriculum appears similar to those of home economics departments in the United States, but in method and application there are many differences.

The new building, planned for 75 to 100 students, includes a foods laboratory, science laboratory, homemaking center, classroom, library, office, and storeroom. When necessary, a second floor may be added. The building is located in the new Kiryah (government offices) on the edge of Jerusalem. The restaurant which will serve office personnel is being built next to the College building and will be under the supervision of the College staff. Here the students will secure experience in quantity cookery and institution management.

Graduates of the College are needed most urgently for the schools and for the adult education programs. At the present time, over 1,000 schools are serving school lunches, reaching close to 100,000 children. It is essential that there be efficient, economical management, as well as that food of the highest nutritive value be served. The new immigrants also need help with their many homemaking problems. Changes from old ways to new must be made quickly, and restrictions are many. An understanding person can do much to help the new citizen make adjustments during this difficult transition period.

Life in Israel today is hard, but the spirit of the people, especially the young people, is undaunted. In spite of the difficulties, the scarcities, the hardships, there is a hopefulness and an enthusiasm in attacking problems. The draining of swamps, the construction of irrigation projects, the establishment of agricultural settlements, the planting of millions of trees have not been easy; but these activities are building for the future and are an expression of the Israeli's faith in that future.

Integrating Consumer Education into Christmas Gifts for Children

Lucille W. Campbell

Mrs. Campbell is on leave of absence this year from her position as homemaking teacher in the Pittsburgh Public Schools. She is herself the mother of three young children.

This article describes how teaching of consumer education can be integrated into other units in the homemaking curriculum. Though Mrs. Campbell has chosen Christmas gifts for children as her principal illustration, the suggestions she gives are applicable to other units. This article is one of a series planned in response to wishes expressed in a 1953 readership survey among members of the AHEA elementary, secondary, and adult education department.

NOVEMBER, its lovely colored trees and brisk cold mornings, reminds us that December will soon arrive and the Christmas season with it. Suddenly plans for Christmas seem to be everywhere and we remember last year's promise to shop early, choose our gifts more carefully, and have time to relax and enjoy the true spirit of Christmas.

In our classrooms, too, we can look ahead to Christmas. Indeed, what more perfect time could there be to emphasize some of the principles of consumer education. In November, students will be glad to translate their classwork into early Christmas planning and shopping. They will be eager to learn ways to stretch their Christmas funds by careful selection or by making gifts themselves. These principles can be brought into the teaching of any unit. For example, let's consider how we might integrate a few of these principles of consumer education into the child development unit through class projects on gifts for children.

What are the principles of good consumer education that we need to keep in mind as we plan class activities? Here are a few that can be considered in relation to almost any commodity:

Purpose for which the article is being purchased
Suitability to the recipient's age, ability, interest
Quality of the product
Value, considering time and/or money spent
Price in relation to the total budget
Care necessary to keep article in good condition
Satisfaction given by the product

Now how can we provide learning experiences for our students that will give them opportunities to discover these principles and to apply them in everyday situations?

Child Development Background

Lessons concerned with the physical and intellectual development of children and with the importance of play to the young child can include discussion of toys, clothing, or books suitable for the child's stage of development.

The lesson on play, for instance, might cover some of the following points:

Play—one of the most important of the child's activities—can be divided into four main divisions, according to the development it advances. Toys and books will need to be chosen with these divisions in mind if they are to meet our criteria of suitability to the recipient's age, ability, and interests.

Dramatic play helps the child to "work out" all the activities he sees going on about him. At four years, imagination runs wild, and toys for dramatic play include equipment for playing store, or imitating community activities of fireman, postman, or construction workers, for example. The child of this age likes books and music to tell stories of the lives of these important people.

Active play stimulates the use of body muscles. As the muscles begin to develop the child learns to creep, walk, and run; later, he wants a slide, tricycle, wagon, jungle gym. Clothes for both boys' and girls' active play must be tough and sturdy to take the inevitable hard wear.

Social play encourages children to get along well together. They learn to accept things which do not always turn out just the way they've planned them. Children love company but must be taught how and what to do with friends. Interest in other children starts about three and continues until school begins. Reading interests of this period broaden, and children love stories about other children and the animal kingdom. Books on manners and simple etiquette are introduced at this age.

Creative play helps the child to express himself and is an escape for pent-up emotions. At three we find that art materials offer quiet play periods, and aesthetic interest grows as the child begins school. A very welcome clothing gift, along with that box of finger paints, would be a coverall apron or smock inexpensively made.

Class Projects to Study Gift Selection

A visit to a local toy shop or children's store will be rewarding in discovering what and why people are buying. The students will quickly observe how foolishly some people choose gifts and how often the only criteria for buying is to fill in a gap the adult feels existed in his childhood.

From a store visit, too, the students will get an idea of the approximate cost of particular gifts and the differences in quality and design that need to be considered with the price.

Other preliminary activities that the class might wish to undertake could include a visit from or to the school librarian who can give help on selection of books, an interview with several young mothers on problems presented in buying toys and children's clothes, or an interview with a salesperson to learn more about people's buying habits and the questions they ask the salesclerk.

For more detailed study of gifts the class can be divided into interest groups. One group may wish to give toys as gifts; another clothing. Have the students in each group make a list of articles that might be acceptable to the age child for whom they are interested in finding a gift. Items on the lists can be discussed as to their purpose, suitability, and probable satisfaction, using the students' observations as a basis for comments.

Another class project can show the students just how much pleasure they can find in making gifts and saving money, too. Homemade articles are very acceptable to small children and cost practically nothing to make. Choice between gifts to buy and gifts to make illustrates to the student that she has two resources to call upon—time and money—and that skillful use, now of one, now of the other, makes both go further. In addition to the very real creative pleasure of making gifts for children, the students will quickly realize that there is another advantage—money saved for something else.

Here are some suggestions for various types of gifts that students can make. Toys will rank highest on their list of preferences; consequently, our first look will be at homemade toys.

The person who makes or buys toys should remember that the safety of the child is the greatest concern. For example [1]:

Are there any parts small enough for the child to swallow?
Is the color harmless, fast, and not easily chipped?
Is it washable, if made of cloth?
Is the wood hard, so that it will not splinter?
Are there any sharp edges which may cause trouble?
Are wheels well balanced so that mobile toys will not easily tip?

Nests of cans are easily made from cans of varying sizes. Paint in different colors with a *nonpoisonous* paint, and the child will play for hours putting them together, taking them apart, and combining colors. Infants to 1½ years enjoy these.

For the 1½- to 3-year-old, a clothespin can made from an old coffee can painted in vertical stripes with plastic clothespins to match will help the child to recognize colors and teach him to manipulate his fingers.

The noisemaking tot of 2 to 4 years old will enjoy a bright colored drum made from a large sized can, opened at both ends. Ends are then made by cutting circles of old inner tube ¼ of an inch larger than the openings and laced together with heavy string.[2]

Some students will be interested in selecting records and books. Here, too, they can refer to the child's developmental stage as well as consider the cost, construction, suitability, and durability of the gift. Young children want to play their very own records. Unbreakable records cost a little more but last longer. Very young children like to turn pages and name familiar objects. Washable books are best suited for this age and can be made from unbleached muslin and old materials. The books should be large enough that the child can handle them easily.

The 3- and 4-year-old enjoys stories and music that tell about himself and his activities and his animal friends. *The Little Family* by Lois Lenski is excellent reading for this age. Margaret W. Brown has an interesting participation book called *The Noisy Book. Pitter Patter* by Dorothy Baruch has wonderful sounds that repeat and repeat. How children love it! Jingles, rhymes, Mother Goose with their silly sounds and phrases make a 4-year-old howl with laughter. For the imaginative 5-year-old, books must live and have more content.

We build a love of books by giving children books that are at their level and really interesting to them. Here are a few very good suggestions:

[1] R. D. Harris. Homemade Toys. Calif. Ext. Serv., Oct., 1951, p. 2.

[2] *Ibid.*, pp. 4, 5.

2 TO 4 YEARS

Cinder's Secret. By ROMNEY GAY. New York: Grosset & Dunlap, 1943, 50 cents.

Here Comes Daddy. By GALE T. PARKS. New York: Wm. R. Scott, 1951, $1.

Just Like You. By EVELYN BEYER. New York: Wm. R. Scott, 1946, $1.

The Little Story Book. By ELINOR BROWN. New York: Oxford Press, 1940, $1.50.

Saturday Walk. By ETHEL WRIGHT. New York: Wm. R. Scott, 1941, $1.

4 TO 6 YEARS

The Man in the Manhole and the Fixit Men. By JUNIPER SAGE. New York: Wm. R. Scott, 1946, $1.50.

Mike Mulligan and His Steam Shovel. By V. L. BURTON. Boston: Houghton Mifflin Company, 1939, $1.50.

Millions of Cats. By WANDA GAG. New York: Coward-McCann, Inc., 1948, $2.

Pelle's New Suit. By ELSA BESKOW. New York: Platt & Munk Company, 1950, 75 cents.

Told under the Blue Umbrella. ASSOCIATION FOR CHILDHOOD EDUCATION INTERNATIONAL. New York: Harper & Brothers Publishers, 1933, $2.75.

Students interested in clothing for gifts will ask, "Are the principles for buying children's clothing any different than those for buying teen-agers' clothes?" The background knowledge about the child's development will help to determine what clothing is most suitable for a particular age child. Many articles of clothing can serve several years if allowance has been made for the child's physical growth.

When a child reaches two, it is a very exciting experience for him to dress himself. His clothing should not be complicated or he will lose interest. Here are some rules to follow in selecting clothes for the small fry [3]:

Front openings are the easiest for the child to fasten.
Large openings allow the child's head to slip through easily.
Zippers or large buttons at least the size of a quarter are best.
Dresses and suits with yokes provide more fullness across the chest and shoulders.
Belts make clothing fit too tight around children's big round stomachs.
Raglan or kimono sleeves won't pinch or bind.

In selection of gift clothing, consideration of care of the garment is particularly important. Will the adult who is responsible for the child's wardrobe know how to care for the garment—is it properly labelled with all of the necessary instructions for care? Will the color or the fabric require more launderings or dry cleanings than the child's family can afford? These are only two of the questions about care that should be answered before clothing is purchased or made.

[3] M. F. LITTLE. Children Can Be Fun. Circular 329, Penna. Exten. Serv., March 1949, p. 8.

Plan an Exhibit and Follow-up

To close the project, have the students bring their completed gifts to class and set up an exhibit for the benefit of the entire class. The boys and girls in each of the interest groups can explain why they made the choice they did for a particular child with regard to purpose, suitability, quality, value, price, care, and expected satisfaction.

When the exhibit is completed the class might be invited to present it as a program for the Future Homemakers of America or even for a parent-teacher group.

The project can be even more interesting and reflect more Christmas spirit if the students can donate their gifts to a local hospital or orphanage. The project may even be begun with such a plan in mind. If so, then a class committee might visit the institution in advance to find out whether there were special conditions which would influence choice of gifts for the children.

And what good is a project if there is no "follow-up"? After Christmas ask the students to go back to the scene of Christmas giving to see how the gifts were accepted and how well they stood the acid test of child's play and use.

Let's help our students to make it a Christmas overflowing with love, kindness, and consideration at a minimum cost to their pocketbooks but with an abundance of satisfaction from a job well done.

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The Consumer Looks at 1953 Fabrics

Joseph B. Quig [1]

Dr. Quig is manager of textile research for the textile fibers department of E. I. du Pont de Nemours & Co. This article is based upon his talk at a meeting, "Looking through the Fabriscope," sponsored by the consumer interests committee of AHEA during the 1953 annual meeting.

IT was a privilege to participate in the meeting sponsored by the AHEA consumer interests committee. It is a typically American privilege, exemplifying one of the most wholesome aspects of the private enterprise system—the voluntary assembling of representatives of the various elements of the American textile industry, merchandising outlets, institutions servicing the textile industry, and representatives of our great educational system who were our hosts under the sponsorship of the AHEA.

You may properly wonder why this talk was assigned to a representative of a company that doesn't sell a yard of cloth—a mere supplier of materials to the textile industry. I wondered about it myself, when the committee gave me the assignment; and I was told that du Pont was designated because it has been talking about "functional fibers and functional fabrics" for some time.

One may designate the new manufactured fibers —Saran [2], nylon, Orlon [3] acrylic fiber, Acrilan [4] acrylic fiber, Dynel [5] acrylic fiber, and Dacron [3] polyester fiber—as synthetic fibers if one desires, for they are synthetic in the sense that man has created them from very simple chemical substances, just as nature has synthesized cotton, wool, and silk in the same manner. Personally, I prefer to designate the new true synthetic fibers as the "chemical fibers," since the word "synthetic" connotes "not the real thing"—a substitute or *ersatz*—to a great many people. They are not synthetic wool, cotton, or silk. Rather, they are fibers with their own distinctive combination of easy living properties, many of which complement and broaden the uses of other fibers.

It is of extreme importance that educators in our universities, colleges, high schools, and the various Extension Services realize that scientists have learned how to go back to the elements and create molecules which are fiber-forming, that the science of fiber synthesis is advancing rapidly, and that it is entirely probable that the chemical fibers, 25 years from now, may relegate most of our present fibers—both natural and man-made—to the realms of obsolescence.

Changes in the relative position of fibers as raw materials are nothing new. In the year 1800, wool was the world's predominant fiber, being used in a ratio of 20 to 1 over cotton; last year, cotton was used in a ratio of 10 to 1 over wool. More recently, you have seen nylon practically eliminate silk from the ladies' hosiery market. In the past decade, rayon has practically pre-empted one of the largest markets for cotton—automotive tire cord fabric. Yet the conquest of this 500 million pound market is scarcely complete before it finds itself challenged by nylon as a candidate for certain automotive tires.

All of these shifts in preference for one fiber over another are clearly traceable to two influences: (1) *sociological* and (2) *economic*. The first is represented by changes in the manner of living of our people as, for instance, the need for easier living in our servantless homes; the steady trend to lighter weight clothing in homes, as offices and automobiles came to be universally heated; and in the pronounced trend toward informality in dress and the widespread adoption of sports clothes—a by-product of increased opportunity for leisure and recreation.

The man-made fibers rayon and acetate are especially notable for a shift in clothing as a result of economic influence. The textile mills have learned how to produce serviceable and attractive fabrics for end-uses previously reserved for natural fibers. Rayon and acetate staple sell for 34 to 35 cents per pound compared with fine territory wools at $1.75 to $1.80. Rayon and acetate were used in

[1] Appreciation is expressed to Richard W. Dennison for the results on blending research and to P. M. Walters, M. K. Ryan, and D. M. Thornton for their suggestions.

[2] Dow Chemical Company trade-mark

[3] Du Pont trade-mark

[4] Chemstrand trade-mark

[5] Union Carbide and Carbon Corporation trade-mark

20 per cent of the women's suits made in 1948 and in 60 per cent in 1952. In separate trousers for men, rayon-acetate growth has gone from 30 per cent of those made in 1948 to 60 per cent in 1952; 70 per cent of men's summer suits in 1952 contained rayon and acetate.

That a great change is taking place in the textile industry is clearly indicated by the many significant developments from research that have matured in the last decade—treatments of fabric to secure improved crushproofing, creaseproofing, launderability, dimensional stability, water repellancy, mildewproofing, nonflammability, and insulation; inorganic, nonflammable Fiberglas [6] yarn; Vicara [7], a greatly improved protein yarn from zein; Fortisan [8], "X-36," and super-industrial viscose process yarns and nonfading acetate yarns. If one adds to these the new chemical fibers, Saran, Dynel, nylon, Orlon acrylic fiber, Acrilan acrylic fiber, and Dacron polyester fiber, and the other chemical fibers in the experimental stage, one can readily foresee a day—perhaps 30 years hence—when some home economist will stand before just such a group as this, point back to the 1940's on a chart and say, "Here, you see, was the beginning of the true synthetic or chemical fibers era in the textile industry."

Channels of Consumer Information

I believe I am correct in assuming that interested persons attending the meeting at which this paper was given are in some sort of educational work, in the broadest meaning of the term "education." If you have already assumed that I am building a case for the chemical fibers and their relationship to the clothing and textile sections of home economics departments in our universities, colleges, and high schools, and also to the vast network of federal and state Extension Services, you are correct in your assumption.

The chemical fibers are in commercial production; fabrics and garments made of them are in our stores; but adequate education has not yet reached the consumer per se to permit intelligent purchasing. Obviously, it is impossible, from the practical and financial standpoints, for the fiber manufacturer to reach approximately 160,000,000 people. The du Pont Company and other fiber manufacturers are working intensively with various segments of the textile industry and stores, with editorial assistance, correspondence, oral presentations, motion pictures, booklets and other literature.

[6] Owens-Corning Fiberglas Corporation trade-mark
[7] Virginia Carolina Chemical Corporation trade-mark
[8] Celanese Corporation of America trade-mark

Aid is being given to education wherever possible. We are limited in our co-operation, however, by the fact that we do not manufacture any fabrics. Since the fiber manufacturer can always give you the names of representative fabric manufacturers, converters, and garment manufacturers, it is suggested that you talk to the representatives at the various fiber exhibits to learn what services and information are available.

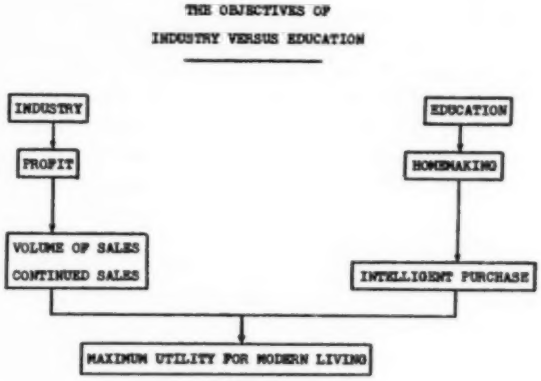

Figure 1

The final objective of both education and industry is the same—*to obtain maximum utility for modern living*—but the incentives are different, as illustrated by figure 1. The problem of communications from the fiber manufacturer to the consumer is complex, as illustrated by figure 2. The task is to impart adequate information to the consumer so that he may purchase intelligently and obtain maximum utility. Some principal factors involved are:

FACTORS INVOLVED IN SECURING MAXIMUM UTILITY FOR MODERN LIVING

1. Appearance—aesthetic properties
   - Fiber
   - Construction of fabric
   - Color
   - Styling
2. Ease of care
   - Launderability
   - Quick drying
   - No ironing—easily ironable
   - Retention press—pleats
   - Readily dry-cleanable
3. Maintenance of original properties
   - Dimensional stability in high humidity, laundering, drying, and dry cleaning
   - Retention of shape
   - Fastness of color—light—laundering
4. Wear life—durability
5. Comfort
6. Economy

With the present poundages of chemical fibers now being produced commercially, it is unrealistic to suppose that either the fiber manufacturer, the fabricating industry, or the retail outlets can permanently regulate the destiny of these new fibers or affect, in any permanent way, the use of one fiber versus another through advertising or promotion, claim or counterclaim. Promotional efforts per se serve to speed or delay the acceptance of a new product; but if the promotional effort is only a "gimmick" to obtain sales, it will certainly delay acceptance by setting up prejudices in the mind of the consumer which may persist for a long time.

The problem of responsibility for giving information regarding fibers, fabrics, and garments is illustrated by the following outline:

PROBLEM OF RESPONSIBILITY FOR INFORMATION

INDUSTRY SEGMENT	SPECIFIC RESPONSIBILITY	TECHNICAL PERSONNEL
Fiber manufacturer	(a) Properties (physical-chemical) (b) Characteristics of fibers	Chemists Physicists Textile technologists Others
Fabric manufacturer* (Weaver-knitter)	(a) Fiber content (b) Construction (c) Color-kind-range (d) Finish on fabric	Textile technologists Fashion co-ordinators Stylists
* Vertically integrated a, b, c, d Greige goods manufacturer a and b		
Converter*	(a) Fiber content (b) Construction (c) Color-kind-range (d) Finish on fabric (e) Sells fabrics already designed	Textile technologists
* Also buys greige goods		
Dyer and finisher	Services fabric manufacturer and converter as directed	Chemists and textile technologists
Garment manufacturer Cutter	(a) *Large* establishments select fabrics and control quality (b) *Small* establishments buy "spot" fabrics	Tailoring experts Fashion co-ordinators
Retail sales	(a) Department stores (b) Mail order firms (c) Chain stores (d) Specialty stores (e) Small stores	Chemists and textile technologists (a, b, c) (Consult fabric manufacturers and converters)

It will be seen that various segments of the industry are responsible for fiber content, construction, color, and finish of fabrics and that there is a wide variance in qualified technical personnel in various segments of the industry. The greatest void in information for the consumer occurs in the garment cutter group, especially among the cutters who make "spot" and "fringe" purchases of fabrics and have no technical personnel. Our smaller stores may obtain reliable information from fabric manufacturers and converters.

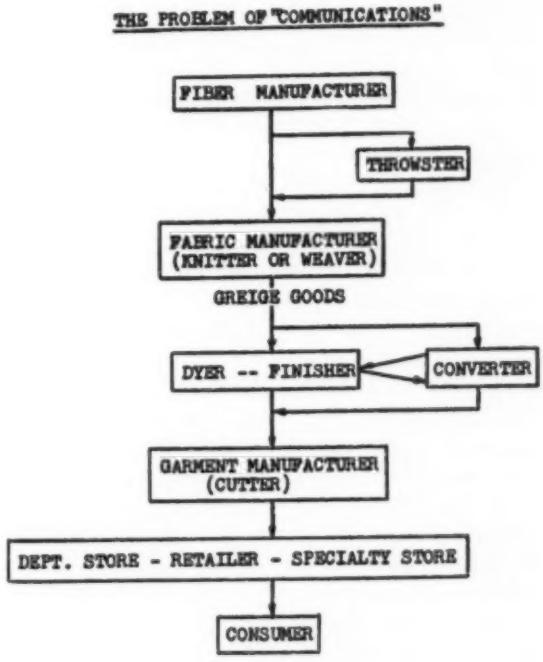

Figure 2

This brings me to the conclusion that the qualifications of the consumer to purchase intelligently should depend on reliable education received from all segments of the industry and retail outlets. However, the problems of communication, divided responsibility, inadequate sources of technical information in some parts of the industry, and the magnitude and complexity of the job indicate that we cannot accomplish the task before us without the help of our broad educational agencies—the clothing and textile sections of the home economics departments of our universities, colleges, and high schools; the far-flung federal and state Extension Services; textile colleges and schools.

Information on Blended or Mixed Fabrics

I realize that I could leave most of you in a

happy frame of mind if I told you only about the remarkable progress which has recently been made in the textile field in the creation of new fibers and new fabrics. To have the proper perspective, it is necessary for us to recall that wool and cotton, which have been used for centuries, still present problems to the consumer. The new chemical fibers have problems involving ironing range, local melting, flammability, pilling, development of static electricity, and others, many of which have been solved by properly blending them with the natural water-absorbing fibers—cotton and wool and the cellulosic man-made fibers. Some of the best all-around fabrics today are blended fabrics, but it is in this area that the greatest confusion exists. In the remaining time, I desire to consider the urgent need for additional information involving blended or mixed fabrics.

An article entitled "How Good Are the Miracle Fibers?" by Edmund L. VanDeusen occurred in *Collier's* magazine (April 25, 1953, pp. 19-21). This article summarizes much of the knowledge of fabrics made from the new chemical fibers, and Mr. VanDeusen has our thanks for its publication, since more articles of this nature are needed. However, the article oversimplifies the subject of blends of fibers in fabrics. Also, I wish the author had refrained from the use of the term "miracle fibers," even though he does qualify the term.

My thesis is that natural fibers, rayon, acetate, and the chemical fibers all have distinct attributes to contribute to fabrics—provided they are manipulated correctly by the textile designer. The term "miracle" connotes an "out of this world" performance and sets up goals which are very difficult or impossible to reach. The statement in the article that "a pair of wool Orlon slacks," without reference to percentage of the respective fibers, and the statement ". . . can be worn indefinitely without a wrinkle showing" will certainly cause disappointment to the consumer. The facts are that all fabrics wrinkle to different degrees and some recover from wrinkling more quickly than others.

Mr. VanDeusen's information on the recommended minimum percentage of chemical fibers in the column "Watch for These Minimums" requires clarification. Three considerations or situations are usually dealt with in the manufacture of blended fabrics, namely:

1. To obtain maximum functionality for some definite property—wrinkle resistance, dimensional stability, durability, and so forth (usually 100 per cent chemical fiber)
2. To compromise on a specific functional property to effect a combination of desirable properties: (a) Improve aesthetic properties – handle, drape, surface texture, novel dye effects; (b) suppress undesirable properties – static, hole burning, flammability; and (c) control selling price
3. To enhance functionality by use of small percentages: (a) Reinforce hosiery and (b) decoration

Referring to du Pont fibers, Orlon acrylic fiber, nylon, and Dacron polyester fiber, in mixtures with rayon, acetate, wool, and cotton in woven fabrics, for which we have the most information, the following must be taken into consideration in the manufacture of blended fabrics:

1. The minimum percentages of the chemical fibers vary greatly with the other fiber in the blend.
2. The minimum percentages vary with how much of the functional property is desired from the inclusion of the chemical fiber (durability, resistance to wrinkling, and so forth).
3. The inclusion of the "correct" minimum or even higher percentages of the chemical fibers does not guarantee performance at a given level. There are other important contributing factors—construction, twist, ply, finishing, for example.

Similarly, it is difficult to make a representative statement in regard to minimum percentages of chemical fibers required in mixed or blended fabrics, without knowing the construction of the fabric. There is also the danger of misinterpretation, if such information falls into the hands of nontechnical personnel.

Blended Fabrics

The remainder of this discussion will be concerned with the reporting of some results of blending wool, cotton, rayon, and acetate with the chemical fibers which was done in the textile research division of the du Pont Company. Chemical fibers were mixed or blended with the other fibers and then woven into two carefully controlled constructions:

1. Plain weave Tropical, 2/45 w. c. yarns, construction 58x58, approximately six ounce/square yard, 64's wool
2. Serge, U.S. Quartermaster, MIL C-823, approximately 12 ounce/square yard, 58's wool

The yarns for any set of fabrics were spun to equal diameters rather than to the same count. They were given the same singles and plied twist. The weave was adjusted to the same finished pick and end count and the finishing was identical. Other work not yet reported, using twills of an inter-

mediate weight, have confirmed the general results reported herewith. Additional details bearing on this work are found in published articles (*1, 2*).

Keeping in mind the considerations usually dealt with in the manufacture of blended fabrics which I have discussed and that the indicated minimum does not alone guarantee performance, the following are the indicated minimum percentages of nylon, Orlon acrylic fiber, and Dacron polyester fiber in woven fabrics to obtain an acceptable level of functionality for the properties mentioned below:

Blends with nylon staple (woven)

1. For *abrasion resistance,* 15 per cent is the indicated minimum.
2. For *tensile strength,* a minimum of 15 per cent increases the tensile strength of acetate or wool, but 60 per cent is required with rayon and cotton.
3. For *tear strength,* a minimum of 15 per cent increases this property in acetate, wool, rayon, cotton.
4. For *dimensional stability* to changes in relative humidity, 40 per cent is the indicated minimum.
5. Nylon has not been successfully used to date to *increase resistance to and recovery from wrinkling.*
6. Information on *retention of press* is not yet available.

Blends with Orlon acrylic staple (woven)

1. For *resistance to and recovery from wrinkling* at both normal and high humidities, 50 per cent of Orlon is the indicated minimum with wool or acetate, and 80 per cent with rayon.
2. For *retention of press,* 25 per cent is the indicated minimum with wool, rayon, acetate, or cotton.
3. For *strength,* the addition of Orlon adds slightly to acetate and wool.
4. For *dimensional stability to changing humidity,* 30 per cent is the indicated minimum for blends with rayon, wool, or acetate.

Blends with Dacron polyester staple (woven)

1. For *resistance to and recovery from wrinkling* in normal and high humidities, 50 per cent is the indicated minimum with wool or acetate and 75 per cent with rayon (unless the rayon is resin treated).
2. For *retention of press,* the indicated minimum in suitings is 25 per cent for blends with rayon, acetate, wool, or cotton.
3. For *resistance to abrasion,* the indicated minimum is 30 per cent for a significant increase.
4. For *tensile strength,* the indicated minimum is 20 per cent with wool or acetate and 60 to 70 per cent with rayon or cotton.
5. For *tear strength,* a minimum of 20 per cent is indicated for blends with wool, acetate, rayon, or cotton. (Abrasion resistance and tear strength are of more importance than tensile strength.)

The results thus far in blended woven fabrics show us that, if the fabric is designed for the indicated minimum for resilience (resistance to and recovery from wrinkling), using Orlon acrylic fiber or Dacron polyester fiber, with rayon, acetate, or wool, then the fabric will automatically possess values for retention of press, resistance to abrasion, tensile strength, and dimensional stability which will be considerably better than the values obtained when the minimum percentage of chemical fibers is used to obtain these respective properties. In other words, when the fabric is designed for the indicated minimum for resilience, then the over-all functionality of the fabric will be improved. If properties other than resistance to and recovery from wrinkling are important, then a compromise on resilience may be made.

Summary

In summary, the new chemical fibers make it possible to design fabrics possessing maximum utility for modern living.

The fiber manufacturer is spending huge sums on textile research designed to develop fabrics and garments having the optimum properties from the standpoint of ease of care, maintenance of original properties, durability, and comfort. This information is being made available to all interested segments of the industry, to retail outlets, and to educational agencies.

Due to the complexity of the industry, divided responsibility for dissemination of information, different degrees of technical qualification in various segments of the industry, and the magnitude of the general educational task, it is necessary that the various educational agencies play a major role in qualifying the consumer to make intelligent purchases of fabrics and garments containing the new fibers.

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Making the Teaching of Clothing More Realistic

Day Monroe

Dr. Monroe is a former division chief in the Bureau of Human Nutrition and Home Economics and a former vice-president of the AHEA. This article is based on her talk to a meeting of the textiles and clothing division during the 1953 annual meeting of the AHEA in Kansas City.

RAISING questions concerning "realism"—or lack of it—would be precarious in some gatherings. "Unrealistic" was an effective "fighting word" in the noisy political campaign of 1952. But clothing teachers discuss realism objectively since this is one of their major aims. They know that unless their teaching is rooted in reality—in an understanding of how people live, of real values and of eternal verities—they will give students little help in coping with life situations.

Ways of gearing teaching more closely to life have been explored by various groups of clothing teachers. From their discussions have come evidence of need for greater realism in areas indicated by the questions which follow—questions posed, not to criticize, but to help teachers analyze their own teaching and work to improve it.

One question which arose repeatedly and in many forms is: Are some teachers "unrealistic" about amounts families can and do spend for clothing? In a style show given for mothers of high school girls, most of the dresses cost $20 to $25. What are the total yearly clothing expenditures of a woman who spends $25 for a street dress? What would the family income be if the wife usually spent that amount? What proportion of the country's families are at or above this income level? Every clothing teacher should know the answers to questions such as these to guide her selection of illustrative materials and her class discussions.

It is easy to overestimate families' clothing outlays. We like to think that we are the best dressed people in the world, thanks in no small degree to our producers and distributors who make garments of the latest fashions available at prices all families, save the poorest, can pay. We read that our national clothing consumption now totals $21 billion a year—an amazing sum. What we are less likely to read is that around half of this dollar volume of clothing goes to the richest one-fourth of the families; the rest, probably a little less than half, to the other three-fourths.

Mrs. Middle-Income, whose family income was about $3600 in 1952, typically spends $156 yearly for her clothing, $25 for all dresses save house dresses (*1*). She buys two dresses, spending $14.50 for one of rayon or silk (perhaps her "best" dress for autumn); $10.50 for the other (probably for spring and summer wear).

She has only six dresses in her wardrobe—the two current purchases, two from the year before, and two now in their third year. Certainly, serviceability is important to her! If fashion changes radically, she is "out of luck"; she cannot discard a last year's dress because the skirt is too short or the shoulders too square.

Teaching keyed to unrealistically high expenditures may have consequences such as these: inability to dress as well as the assumed level may increase the feeling of social inadequacy of a shy girl; another girl, uninformed about family finances (as most are), may think her relatively small clothing allowance indicates parental niggardliness and press for an increase. The teacher thus may contribute to family tensions although an avowed purpose of home economics is to lessen them.

Knowledge of Sewing Practices

Another question posed by group discussions is: Has teaching of clothing kept pace with changes in women's sewing practices? Garment construction is given a prominent place in most clothing curricula on the assumption that women and girls do considerable home sewing. Do facts support this assumption?

Four studies, all made since World War II (*2*), are in substantial agreement as to these points:

Only about one-half of the women and girls, 18 or older, in this country do so-called "creative" sewing (as distinguished from mending).

Of those who sew, only about one-half—that is,

about one-fourth of *all* women and girls—make appreciable contributions to their own wardrobes. The others make few garments, perhaps aprons or an occasional blouse.

Even those who do considerable sewing are likely to purchase more than half of the clothing they acquire yearly since they tend to confine their sewing to dresses (of fabrics other than wool), skirts, blouses, and play clothes. Suits, coats, underwear and nightwear, footwear, accessories, and the like are bought.

These studies indicate that this country's families buy about nine-tenths of the clothing consumed in a year, amounting to $19 billion. Only one-tenth or less is made at home.

All about us is evidence that the trend toward giving the task of garment-making to industry is not apt to change. The number of women earning continues to rise with an inevitable consequence—less time for sewing.

In the late 20's, Mrs. Doe made all the dresses in little Mary's layette by hand. Today, Mary, now a young matron, bought a ready-made layette in order to have more time to study child psychology. Does not Mary have a better sense of values than her mother had? Would we turn back the clock if we could? Are we sure that gains from markedly increasing home sewing would exceed the losses?

Women's attitudes toward many household tasks, including sewing and cooking, are changing. Husbands have a shorter work week; why not wives? Less time is spent on many aspects of homemaking than three decades ago. The old picture of a family evening with the wife plying her needle is giving way to one of the whole family watching television.

To lessen the time spent in cooking and sewing women eagerly turn to short cuts. This raises another question: Is there need to re-examine the standards set for students' achievement in construction of garments for class assignments? Some teachers proudly say they do not teach short cuts; that to use them means "letting down standards."

Are some standards unrealistically high, based on "ivory tower" attitudes instead of an understanding of present-day time pressures? A home economics alumna told of the conflict between her standards from college and her time, during her first months as a bride. Her work was never done; her husband complained because she had no time to do things with him. Finally, to use her words, she "threw her standards overboard" . . . and lived happily ever after! What she really did was to set up new standards when she learned for herself a basic rule for happy family life which her college failed to teach her: If standards of technical achievement conflict with human values the latter must win.

Clothing Consumption

We turn now to clothing consumption. Have we linked our teaching in this area to the eternal verities? "Wise" consumption of clothing helps a girl to build a good life: to develop and express her esthetic interests; through understanding herself and others, to make happy personal and social adjustments. Has teaching been directed toward these ends? Or has it tended to focus primarily upon wardrobe selection? The latter is a desirable aspect of clothing consumption—but surely of less significance than the former!

Teaching "wise" clothing consumption often requires changing students' attitudes. All too many students have an erroneous idea that good clothes, by some miracle, endow one with personality. How can a teacher substitute for this idea an understanding that personality is built from within? How can she lessen students' tendency to confuse "having" and "being"? Do teachers of clothing unconsciously encourage students to overemphasize dress?

George W. Hartmann has reminded us that (3) "we find clothing still insolently employed as a badge of snobbish exclusion and discrimination, much to the resentment and deep hurt of broad masses of our citizenry." Girls who judge others by their clothing help to make inability to dress well a barrier to social participation, to the "deep hurt" of countless low-income girls. How can we help remedy this situation?

More than a half-century ago, Veblen pointed to the prevalence of conspicuous and competitive consumption in dress (4). This still prevails. The Joneses use clothing to impress people with their wealth. Note that Mrs. Jones dresses in excellent taste: her attire is conspicuous by its expensiveness. To make sure that her friends are aware of the amount she spends she need only remark, casually of course, that her new suit is one of "Adrian's newest models." (A woman in a lower income group achieves the same result by citing the name of a prestige store.) Mrs. Smith, competing with Mrs. Jones, tries to match her clothing expenditures. Thus through their clothing consumption both Mrs. Jones and Mrs. Smith foster jealousy and envy which hinder good social relationships. Does our teaching lessen such misuses of clothing?

Viewing the rise in clothing purchases, some

teachers have asked: Is buying given an emphasis in our curricula commensurate with its importance in people's lives? Others have answered: "The curriculum is already overcrowded. Nothing can be added." Perhaps the facts that indicate need for additions would also, if studied, indicate possible subtractions.

Most clothing teachers agree that teaching girls to become good buyers is one of their responsibilities. What are their criteria of "good" buymanship? A high school teacher looked at an exhibit of moderate-price dresses such as middle-income girls buy and said: "I never use clothes as cheap as these in lessons on buying; I couldn't teach the girls to be good buyers if I did." To her, "good" buying meant purchase of "good" clothes—those having qualities provided only in expensive lines. None but the well-to-do girls could be "good" buyers, according to her criteria. Apparently, she felt no obligation to help all her students obtain good returns in satisfactions from their outlays, whether large or small.

By what method should girls be taught to appraise goodness of garments, when buying? "Through garment construction," some teachers say; "by making buttonholes, a girl learns to judge workmanship of ready-made garments." Unquestionably, we learn by doing; but what about the realities of time? How practical would we consider our colleagues in housing if they taught techniques of building in order to teach girls to buy wisely?

Is our teaching of buying sufficiently broad in scope to enable students to play well their roles in modern markets? Today's consumer-buyers have responsibilities of three sorts: (*1*) for developing ability to make wise decisions concerning their own purchases; (*2*) for working with distributors and producers to improve market practices, as to increase informative labeling and reduce consumers' abuses of the privilege of returning goods; (*3*) as citizen-consumers, to support regulations that maintain fair play in markets and to help ensure that legislation is in the public interest instead of that of pressure groups.

Education of consumer-buyers of clothing should lead toward a broad understanding of markets and of the interrelatedness of clothing consumption with distribution and production; an appreciation of the job done by business and its problems in making us "the best dressed people in the world"; knowledge of the major laws relating to marketing of clothing. A course focused on buying guides (as how to buy hose) will provide only partial preparation for the first of the consumer's three responsibilities!

Clothing Education and General Education

And now for the last and one of the most important of the questions: Is clothing education meeting its responsibilities for students' general education? All teachers, no matter what they teach, have an obligation to help their students grow in maturity—become more effective in meeting their personal and social responsibilities and increasingly wise in the art of living. Clothing teachers have unique opportunities for giving such help—but only if the scope of clothing education is broadened.

Does clothing education have a responsibility for helping *all* girls and women become better consumers and buyers of clothing? Or is it primarily for a self-selected sample of girls who like sewing? Frequently, teachers defending the *status quo* say: "Our girls take clothing because they want to sew." Have they explored the wants of girls not enrolled in their classes? Would other types of courses attract some girls who now pass by home economics and thus help solve problems of student recruitment?

Implicit in the foregoing questions is a belief that clothing education of the future has potentialities far greater than in the past when it was narrowly limited to developing technical skills. But these potentialities cannot be realized unless better roads to "reality" are found in clothing curricula, courses, and teaching methods. This will not be easy; but viewing progress already made, can there be any doubt that clothing teachers will succeed, especially if more teachers work toward this goal?

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Why Drop-outs in College Home Economics?

Dorothy M. Leahy

Dr. Leahy is chairman of the department of home economics at the University of California at Los Angeles. She was chairman of a committee of the resident instruction section of the home economics division of the Association of Land-Grant Colleges and Universities assigned to study the problem of drop-outs in home economics in colleges and universities.

IN 1950, a committee was appointed by the chairman of the resident instruction section of the home economics division of the Association of Land-Grant Colleges and Universities to study the question of why students withdraw from home economics. This resulted in a survey of 31 institutions for the years 1950-51 [1] and 1951-52.[2] The national study pointed up common characteristics of the problem and the particular need of intensive study. The department of home economics at the University of California at Los Angeles was one of the 31 institutions participating in the national survey and one of two institutions which made an intensive study of its own drop-outs. Like the others, UCLA desired to learn what students who withdraw or drop out think about home economics.

Since the national study seemed to indicate that drop-outs are a local problem for each school, the procedure used at UCLA may be helpful to others who are interested in securing evidence which would be statistically significant.

At UCLA, a list of the withdrawals for the year 1951 was compiled. Thirty-seven former students were classified as withdrawals, and to them was sent a questionnaire designed to elicit a frank opinion on diverse aspects of the curriculum. Twenty-seven or a 73 per cent sample replied. How nearly these 27 typified the opinion of the entire group cannot be exactly determined. However, the fact that the 10 withdrawals failing to reply resembled the respondents in age, amount of home economics undertaken (30 units, median classification sophomore, spread included freshmen, sophomores, juniors, and seniors), as well as in choice of major field (three-fifths were in the general or in the home economics education major) warranted placing more than passing confidence in the replies received.

The reasons offered for withdrawal from home economics in college were multiple, averaging five factors per drop-out which were evenly distributed over three categories; namely, general, curriculum, and instruction.

On the average, two items classified in the general category were checked by each respondent as entering into her reasons for dropping out. Marriage ranked first when the entire list of possibilities was considered and as first among the nine factors which might have been considered psychosocial. No other reason was even a close second. Apparently the impact of such socioeconomic factors as money, employment, and living conditions was less potent than is sometimes supposed. When one examines the items in the *general* category which are more specifically descriptive of home economics the rank order of frequency is: unsatisfactory grades, inadequate counseling, and lack of interest in home economics.

The possibility that marriage may be an umbrella item, including under its generous protection any one or a combination of all the others, should not be overlooked. For example, a withdrawing student may have had little interest in home economics, received poor grades, had insufficient funds, had unsatisfactory living conditions, but by the time the questionnaire came around she was able to offer marriage as a factor for dropping home economics. Note should be made, also, of the fact that none who checked marriage as a factor for dropping home economics continued in another college or institution. The fact of the existence of a war emergency, at which time marriage rates are known to be accelerated, undoubtedly enters here. Nevertheless we should not be blind to the

[1] LEAHY, D. M., *et al. Proceedings of the Association of Land-Grant Colleges and Universities.* Sixty-Fifth Annual Convention, Houston, Texas, 1951, p. 273.

[2] *Ibid.*, Sixty-Sixth Annual Convention, Washington, D.C., 1952, pp. 232-233.

probability that marriage (a socially acceptable state) could indeed influence the reasons expressed. It could be a definitely "face-saving" benediction in the case of a sensitive respondent.

Within the category of the *home economics curriculum* itself, 20 respondents, or 74 per cent of the group, found expression for dropping out. Here, the average number of items checked was two. In rank order of frequency they were: too many science courses, too few home economics courses in the freshman year, too many long laboratory periods, too few electives in home economics, and other courses too difficult. None thought that the home economics courses were too difficult, nor did anyone check the item "home economics lacks prestige."

The number of respondents checking factors which described the *instruction in home economics* unfavorably was 15, or 55 per cent. Here the average number of items checked was 1.5. Their rank order was: home economics not interesting, no individual help, too much lecture, and classes too large.

The category of items labeled *instruction in other courses* received less attention. Eight respondents checked the items listed here. The average number of items checked was 2.5. The concentration of their opinions fell on three items: namely, no individual help, classes too large, and too little student participation.

Exactly how much significance should be attached to the opinions of drop-outs cannot be precisely stated. How reliable are these opinions? Would the opinions of drop-outs be supported or refuted by any other similarly chosen group?

In an attempt to answer the latter question, the same questionnaire was given to a group of home economics majors who were in attendance during the spring semester, 1952. Each member of this group (which subsequently shall be referred to as the control group) was chosen because of her close resemblance to one of the drop-outs on nine factual and relatively objective criteria. The latter were: (1) age, within 6 months; (2) number of units achieved within plus or minus 6; (3) grade point average, plus or minus 0.5 point; (4) English entrance exemption; (5) home economics major; (6) employed or not while attending UCLA; (7) sorority membership; (8) marital status; and (9) residence distance from UCLA.

While it was impossible to establish 100 per cent identity on each criterion for each drop-out and her control, the group resemblance is striking. The median age of the experimental group was 19 years, 6 months, while that of the controls was 20 years, 2 months. In grade point average, the median for the experimental group was 1.17 and for the controls, 1.14. The median number of university course units accomplished was exactly the same for both the experimentals and the controls, namely 31.0. The range in course units for the experimentals was 7.5 to 108.5, while for the controls it was 11.5 to 113.0. Eighty-one per cent of the experimental group and 63 per cent of the controls were either general or home economics teacher education majors. Exemption from the English requirement in the two groups was relatively similar (78 and 69 per cent). Also, the difference in the number of transfer students was insignificant, 19 in the experimentals and 21 in the controls.

A discrepancy in opinion between the two groups may be ascribed to marriage since 13 in the experimental group and 8 in the control group were married. In regard to the matter of employment while attending the University the groups were closely matched; 3 in the experimental group and 4 in the controls were employed. The groups were poorly matched as to membership in a sorority and distance of residence from the University.

In a comparative analysis of the opinions of the two groups, note must be taken of the fact that while both rendered opinions about home economics, the stimulus question to the drop-outs (experimentals) was in essence "What were your reasons for leaving home economics and/or this institution?" For the student in attendance (controls), the question was "What were the reasons that definitely entered into your decision to take home economics?" However, the items of the questionnaire given each group were the same in number and kind. They were designed to convey the same meaning or its exact converse to both groups of respondents. This design poses a question of validity in any cross analysis of data. The composition in the two questionnaires under the categories of home economics curriculum and instruction in home economics as well as the section entitled instruction in other courses was identical. It is in these latter areas, moreover, that an institution and staff have direct responsibility and could reasonably be expected to institute correction or change.

If we regard a critical ratio of 2.0 or better as discriminating, then, in any similarly drawn samples of home economics students, the chances are 99 in 100 that the results would be similar. Table 1 shows a comparative analysis for 12 items (included in the general category and under cur-

riculum) whose frequency of occurrence was sufficient to warrant analysis. Here *marriage* is a significantly determining factor for drop-outs. *Interest in home economics* is significantly less among drop-outs than among those who continue to pursue home economics. Further, drop-outs judge the *educational counsel* given them as inadequate. All other items appearing in the general category of the questionnaire have no statistical significance.

Of the seven items listed under curriculum, the findings show (table 1) that *too many long laboratory periods* is the only one likely to be sustained by other similarly drawn populations. Here the control group declared themselves in a significantly higher proportion that the program at UCLA has too many long laboratory periods. Whether such periods were within or without the home economics courses was not learned.

The responses to the items in the categories related to instruction in home economics and in other courses yielded opinions that stood the test of significance for three items. As shown in table 2, a significantly larger proportion of drop-outs than controls were of the opinion that the instruction in home economics was *not interesting* and that there was a *lack of individual help* in courses other than home economics. The controls rested their indictment on the item *too little student participation.*

TABLE 1

Percentage item analyses of opinions of students who dropped college home economics, 1951, compared with a group of students in attendance at UCLA, spring 1952, in regard to general items and curriculum

ITEMS	OPINIONS OF EXPERIMENTAL GROUP	OPINIONS OF CONTROL GROUP	D / σ DIFFERENCE	CRITICAL RATIO
	per cent	per cent		
General	(N checks = 42)	(N checks = 75)		
1. Marriage	21	5	0.16 / 0.067	2.38
2. Interest in home economics	12	32	0.20 / 0.073	2.64
3. Grades attained	14	4	0.10 / 0.058	1.72
4. Influenced by others	7	3	0.04 / 0.043	0.93
5. Adequacy of counseling	12	1	0.11 / 0.052	2.11
Curriculum	(N checks = 40)	(N checks = 43)		
6. Other courses too difficult	13	12	0.01 / 0.071	0.14
7. Too many science courses	25	14	0.11 / 0.086	1.28
8. Too few electives in home economics	13	14	0.01 / 0.071	0.14
9. Too few electives in other fields	10	7	0.03 / 0.061	0.49
10. Too many difficult courses freshman year	5	9	0.04 / 0.055	0.72
11. Too few home economics courses in freshman year	15	7	0.08 / 0.068	1.17
12. Too many long laboratory periods	15	35	0.20 / 0.092	2.17

TABLE 2

Percentage item analyses of opinions of students who dropped college home economics, 1951, compared with a group of students in attendance at UCLA, spring 1952, in regard to instruction in home economics and in other courses

ITEMS	OPINIONS OF EXPERIMENTAL GROUP	OPINIONS OF CONTROL GROUP	D / σ DIFFERENCE	CRITICAL RATIO
	per cent	per cent		
Instruction in Home Economics	(N checks = 23)	(N checks = 15)		
1. Not interesting	22	7	0.15 / 0.0084	17.8
2. Too much lecture	17	7	0.10 / 0.075	1.33
3. Too little student participation	13	20	0.07 / 0.012	5.83
4. No individual help	22	13	0.09 / 0.084	1.07
5. Restricted laboratory use	4	27	0.23 / 0.136	1.69
6. Classes too large	13	27	0.14 / 0.102	1.37
Instruction in Other Courses	(N checks = 20)	(N checks = 11)		
7. Not interesting	5	18	0.13 / 0.094	1.36
8. Too much lecture	10	9	0.01 / 0.082	0.12
9. Too little student participation	15	36	0.21 / 0.118	1.78
10. No individual help	30	9	0.21 / 0.011	19.0
11. Classes too large	30	27	0.03 / 0.127	0.23

In summary, the study calls attention to five factors about which the department of home economics at UCLA should rightly concern itself. They are:

1. The adequacy of student counseling
2. The interest element in home economics instruction
3. The lack of individual help in courses other than home economics
4. Too many long laboratory periods in any single term
5. Too little student participation in home economics courses

Hurdles to Good Food Practices

Clara Tucker and Ray Loree

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NUTRITIONAL studies reveal that, despite the abundant food supply and the generally high purchasing power in America, a substantial proportion of the population's diet remains inadequate. A common approach, through which workers attempt to improve food practices, is that of imparting nutrition information and demonstrating superior food practices. This approach may not be the best. Perhaps, in order to plan intelligently programs designed to change practices, we need to know more about the causes or conditions creating the faulty practices. From the results of a study conducted in a rural community in a Louisiana bayou area, a knowledge of some of the psychological and sociological forces operating in a community are suggestive of new approaches to the problems of changing food practices.

This study is an effort to gain some insight into the causes or conditions creating faulty food practices. In the community studied, a nutrition education program was in progress and the investigators were sensitive to conditions in the community that they judged might obstruct the efforts to change food practices. The investigators called these obstructing conditions "hurdles" and postulated that the nature of these hurdles might vary from such factors as "lack of money" to psychological factors such as a "lack of a feeling of need to improve." The plan for the research was: first, to find out the food practices of the families in the community in order to identify faulty food practices; and second, to obtain data through which it would be possible to appraise the nature of some of the hurdles that would be encountered in any effort to better the food practices of the families studied.

The home interview technique was the principal means of gathering data. A trained interviewer used a schedule designed by the writers to secure information that could be studied to give insight into the barriers to improved food practices. Seventy-five homemakers supplied the data for the study, and each interview required about two hours.

The parish in which this study was conducted is located in a Louisiana bayou area. The families included had children ranging in age from eight to eleven. A variety of nationalities was represented, the largest group being of French extraction. Two religious groups predominated—Catholics and Baptists. Incomes of the families ranged from $600 to $10,200 per year with one-half of the families earning $2700 or less and only three families earning over $5,000 per year. The formal educational attainment of parents ranged from eight mothers and ten fathers who had never attended school to one mother and one father who had completed college.

Food Practices in the Community

The method of collecting data on the food practices of the 75 homemakers was as follows: Eighty-nine foods were listed on the interview schedule. These foods were grouped under the following classes: meats, sea foods, meat substitutes, milk and milk products, breads, cereals, beverages, sweets, salads, salad dressings, green leafy vegetables, yellow vegetables, fresh and canned fruits, dried fruits, fats, and one-dish meals. In the interview the homemaker was asked to estimate the average number of times per week that each food was served to her family. The data obtained were checked against the results of another study in which children from the same families kept a seven-day record. The information secured from interviews corresponds well with the seven-day records showing foods served and those omitted from the diets.

In order to analyze the data obtained, the foods listed in the schedule were classified into the Basic Seven Food Groups. Food intake scores were obtained for each family. It was found that citrus fruits, green and yellow vegetables, other vegetables and fruits, and butter and fortified margarine were the food groups most frequently lacking in the homes. The reported numbers of servings per

week of the "meat and meat substitutes" and the "bread, flour, and cereal" food groups were about three times as great as the minimum recommended by the National Research Council.

Hurdles to Good Food Practices

In planning the study the investigators conceived a number of possible explanations for faulty food practices in the home. It was hoped that the questions included in the interview schedule would shed light on the extent to which the following handicaps prevented the homemaker from serving better balanced or better prepared meals: (1) lack of money, (2) lack of education, (3) unavailability of foods, (4) lack of feeling of a need to improve, (5) unsatisfactory attitudes toward food, (6) unsatisfactory family and community living patterns.

An analysis of the data obtained from the 75 homemakers revealed that the above possible handicaps fell into two classes:

1. Handicaps that seemed to be hurdles to good food practices for *all* the families in the study: lack of a feeling of a need to improve and unsatisfactory family and community living patterns
2. Handicaps that seemed to be hurdles to good food practices for *some* families but not for others: lack of money, lack of education, unavailability of foods, and unsatisfactory attitudes toward food

Lack of a feeling of need to improve. The satisfaction and pride of the homemaker with her competency in looking after the food needs of her family were frequently expressed during the interviews. A tabulation of responses to the question: "What are some of the things you would change in cooking and serving foods if you could?" revealed that only eight mothers expressed any desire to know how to prepare new dishes or to improve their abilities in preparing foods. Responses to other questions included in the schedule seemed to point to the fact that the homemaker conceived of good selection and preparation primarily in terms of filling up the family with foods that satisfied the appetites and tastes of its members. Generally, the mothers providing the least satisfactory diets from a nutrition standpoint seemed to feel just as satisfied with their efforts as did the mothers providing a fairly adequate diet.

The importance of a feeling of need to improve, as a prerequisite to improved food practices, was illustrated clearly in three families in the study. In each of these three families, one member of the family had at one time developed a physical ailment which the family physician attributed to a faulty diet and prescribed a new diet. The food practices of these families had changed.

The family and community living patterns. An effort was made to determine the channels of communication through which homemakers obtained information about foods. Ideas affecting day-by-day living seemed to be principally derived in this community through face-to-face contacts. This fact was reflected in the responses of homemakers to the question: "Where did you learn to cook the dishes you now prepare?" There were 131 responses given by the 75 homemakers. Of these the largest single source was the homemaker's mother—53. Other relatives of the homemaker and neighbors were mentioned 39 times. "Experience" was mentioned 18 times. Sources such as "cookbook," "school," "home demonstration club," magazines, and radio were mentioned 21 times.

The data on the channels of communication presented above are at least suggestive of considerations to be taken into account in planning a community nutrition education program. Reading and radio listening habits of the families and the failure of families to attend meetings of organizations in the community concerned with nutrition suggest that these and other avenues of communication be adapted to the characteristics of the families in the community.

Lack of money. Fifteen of the families of this study received an income of less than $1,750 per year. The average number of children in these families was five. For such families, lack of money is obviously one major hurdle to the attainment of a balanced diet. However, lack of money does not appear to be the only hurdle for these families. Meat and meat substitutes, and bread and cereals are abundantly supplied in their diets. Vegetables and fruits are lacking. Yet when these homemakers were asked what foods they would serve more frequently if they had more money, 12 stated they would serve more meat. Only two of the homemakers stated that they would serve more milk, and only two of the homemakers stated that they would serve more vegetables and fruits. Food, for these families, appears to serve primarily a "filling up" function. A redistribution of the food dollar, while nutritionally defensible, would entail the less frequent serving of certain long-established custom foods.

A correlation chart with food intake scores for the seventy-five families plotted against income of families revealed that the relationship between the two variables was linear. The product-moment

correlation and the standard error were found to be 0.48 ± 0.09 [1]. Thus less than one-quarter of the variance in the quality of the diets of the 75 families can be statistically accounted for by variance in incomes.

Lack of education. The homemakers were not given a pencil-and-paper test to measure their understanding of nutrition. However, ample opportunity was given them during the two-hour interview to reveal nutrition understandings. For example, homemakers were asked to name the foods that they would serve in one day to contribute to the health of their families. Only four homemakers (three of whom had taken home economics in high school) showed clearly that they knew that a variety of food classes was needed to obtain a balanced diet. Most of the homemakers named one or two foods. Milk was named by 49 homemakers, meat by 39, vegetables by 27, fruit by 17, and rice was named by 7. Eight homemakers said that they did not know what foods contributed to the health of their families and ten interviewees indicated by their replies that they thought that all foods that "filled you up" were health foods.

The amount of formal education received by many of the homemakers in the community was such that the value of distributing nutrition literature in the community might be questioned. Of the 75 homemakers, 41 had not completed elementary school. The product-moment correlation between the food intake scores and the number of years of formal education of the mother closely paralleled the income of the family. This fact is reflected in the reduced partial correlation of 0.32 found between food intake scores and mothers' education with income held constant.

Unavailability of food hurdle. When "availability" is defined to include the effort required to obtain a given food, the comparative cost of the food, the freshness of the food, and the variety of foods available within a given class—then the "unavailability of foods" seems to be a hurdle for the homes in this study. A limited variety of vegetables and fruits, unattractively displayed, may be purchased in the stores in the community. Possibly the consumption of fruits and vegetables within the community might be increased merely by increasing the "availability" of these foods.

[1] For all correlations reported in this paper the assumptions of linearity and homoscedacity were checked by inspection. When doubt existed as to linearity, the writers applied the analysis of variance technique described by Quinn McNemar in *Psychological Statistics.* (New York: John Wiley & Sons, 1949, pp. 255-262). In no case was the departure from linearity statistically significant.

Practically all families in the community have some land available on which food could be produced. Yet, only 22 families had either spring or fall gardens, 23 families raised chickens, 24 families produced any of their own meat products, 13 families had their own cows, and 13 families canned fruits and vegetables. Availability scores—in terms of the number of home-produced food resources available—were obtained for each family. The product-moment correlation between these scores and the food intake scores is 0.39 ± 0.10. Thus some relationship was found between the nutritional quality of the diet of the home and the number of home-produced foods available.

Attitudes toward food hurdle. Kurt Lewin identified four values underlying food selection.[2] These were: (1) money, (2) health, (3) taste, and (4) status. In Lewin's study, offhand comments of housewives were classified under these four values.

In this study two additional values were postulated—ease of preparation and availability. In an endeavor to determine the foods associated with each of the six values, homemakers were asked questions such as: "What foods do you select when you have the least money?" "From a health standpoint what foods would you serve in one day?" and "For happy family occasions what foods would you choose?" and others. In addition, homemakers were asked why they served each of the foods listed on the interview schedule. From the answers given, it was possible for the interviewer to check in each home one or more of the six values for each food served of the 89 foods included in the schedule.

The following percentages of homemakers' responses associated with each of six values were computed.[3] These percentages were taste—97 per cent, health—13 per cent, availability—9 per cent, economy—8 per cent, status—8 per cent, ease of preparation—5 per cent. Homemakers mentioned more than one value for some foods. There is little doubt that within this community the "liking" of a food by the family is the most important reason for its appearance on the dinner table.

[2] K. Lewin. Food Habits and Methods of Change, *The Problem of Changing Food Habits, 1941-43.* Washington, D. C.: National Research Council, 1943, pp. 35-65.

[3] Percentages of homemakers' responses associated with each of the six values were computed using the following formula:

$$\text{Percentage of value } x = \frac{H_{1x} + H_{2x} + H_{3x} + H_{nx} \ldots H_{35x}}{H_{1f} + H_{2f} + H_{3f} + H_{nf} \ldots H_{35f}} \times 100$$

where H_{nx} = the number of foods with which homemaker n associated value x

H_{nf} = the number of foods homemaker n served

A rough measurement of the "health attitude" of each homemaker was obtained by assigning a score of one for each of the following foods or food classes mentioned as served for health reasons: liver, eggs and peanut butter, milk, vegetables, and fruits. A product-moment correlation between these scores and the food intake scores was found to be 0.67 ± 0.06.

Statistical Study of the Data

A study was made of the extent to which scores on the income of families, mothers' education, availability, and attitude toward food predict the food intake scores. Intercorrelations are presented in the table.

Intercorrelations among five variables, including one index of quality of food intake and four predictive indices (N=75)

PREDICTIVE INDICES	INDEX OF QUALITY	PREDICTIVE INDICES		
	Food Intake	Income	Mother's Education	Availability
Income	0.482	—	—	—
Mother's education	.512	0.587	—	—
Availability	.391	.231	0.172	—
Food attitude	.668	.412	.603	0.223

The coefficient of multiple correlation was found to be 0.742. Application of a shrinkage formula reduced the value of R to 0.720 ± 0.058.

It is obvious from the above that, for the particular families included in this study, the quality of food intake is most closely related to the food attitude variable. The addition of other variables does not significantly improve the prediction of the food intake scores.

Summary

Homemakers in 75 homes in a rural southeastern Louisiana community were interviewed in order to identify some of the inadequacies of their food practices and to explore possible causes for the faulty food practices. Certain deficiencies—mainly a lack of sufficient vegetables and fruits—were identified in the diets of the families. Food intake scores were obtained for each family.

Six hurdles were postulated as possible obstacles that would need to be overcome in any effort to improve the diets of the families.

A study of one of the hurdles—"family and community living patterns"—revealed that ideas about food practices were, for the most part, communicated orally in an informal way, between friends and relatives. This suggests that an approach to a nutrition education program that utilizes existing channels of communication might profitably be explored in the community.

A second hurdle—"lack of a feeling of a need to improve"—seemed to be present for all homemakers in the community. The homemaker apparently did not measure her success by a nutrition yardstick but rather in terms of her ability to provide tasty foods that filled up her family.

Four of the hurdles represented conditions that varied from one home to another within the community. Scores were obtained to represent: (1) family income, (2) mother's education, (3) availability of foods, and (4) attitudes toward foods. Correlations were obtained between these scores and the food intake scores. The attitudes of the homemaker toward foods were found to be highly correlated with the quality of the diet provided by the homemaker. If this high relationship holds true in other communities, then the success of nutrition education programs will depend largely on the development of effective methods of changing food attitudes.

Announcement of Phi U Scholarship

Phi Upsilon Omicron announces a $1,000 scholarship for graduate study for 1954-55. Phi U members—not honorary—who have at least half the hour requirements toward a doctor's degree in some phase of home economics and at least four years of successful employment in home economics may apply.

Selection will also consider: (1) participation in Phi U activities—as an active and as an alumna member, in AHEA, in other professional organizations, and in civic and church groups; (2) personality; (3) statement of purpose of study; and (4) the appraisals from the chairman of the committee for graduate study, a person under whom the applicant has worked directly, a co-worker, and a person in a different field. Obtain application blanks from Mrs. Genevieve Forthun, Phi U Business Secretary, 720 N. 12th Street, Fargo, North Dakota. Applications must be in by January 15, 1954.

Technical Vocabulary in Texts Used in the Junior High School

M. Joyce Nelson

Miss Nelson is a homemaking instructor in the East Lansing (Michigan) High School. This article is based on her master's thesis written at the University of Minnesota.

THIS study of the technical vocabulary in books for junior high school classes in home economics was undertaken because the author had encountered considerable difficulty in inducing pupils in grades seven to nine to read and understand printed materials and because she had heard so many teachers say that their pupils objected to reading assignments and were interested only in the laboratory activities in home economics classes.

The purpose of the study was to determine the vocabulary load in widely used books and then to measure the extent to which junior high school girls knew the meaning of the words included.

Few studies of the home economics vocabulary have been made since that conducted by Pressey in 1924.[1] She found that 1,189 of the 1,654 technical terms in home economics texts were considered as essential by the 27 home economics teachers who checked them. Even then the vocabulary load was heavy, and it has increased since.

The following procedure was followed in determining what the technical terms were and in constructing the measuring instruments. The author read more than 3500 pages in 14 books widely used at the junior high school level and recorded each technical term and the number of times it appeared. Nine entire books and pertinent sections of the other five were read. Then test items were formulated to check upon pupils' knowledge of the meaning of a great many of the words. After an extensive preliminary tryout, the tests were revised and two equivalent forms were developed. Each form contained 68 multiple-choice and matching items from all areas of home economics. Since each item included not only the correct answer but also several decoys, many words were involved.

The tests were given in 27 schools, selected at random from those offering home economics in Minnesota towns with a population of 4,000 or less, and in one school in a large city. They were administered shortly after school opened in September and again just before the end of the first semester to girls taking home economics in grades seven, eight, and nine. The tests were given to a total of 2,059 pupils in the fall, with 1,911 of these pupils repeating them in the winter. All pupils who took the tests also filled out the Sewell Socioeconomic Status Scale.[2]

The 27 schools were divided into three groups depending on the population of the towns. In addition, the students within each school were divided into groups based on the number of semesters of previous instruction they had had in home economics. All results were analyzed separately for each group before they were combined.

Analyses were made of the relationship between pupils' test scores and (1) the size of the town in which they attended school, (2) the amount of instruction they had had in home economics, and (3) their scores on the Sewell Socioeconomic Status Scale. Comparisons were also made of the scores on the two testings. Each test item was analyzed to determine its index of discrimination and the percentage of the pupils who knew the meanings of the words used as answers.

The investigation revealed many facts about the vocabularies of the pupils in the schools in which the testing was done. Although there was an increase in the number of words that the pupils knew at each successive grade level, a great many of them did not understand the technical home economics terms which appeared in the textbooks.

A study of the table reveals that most of the seventh-graders (80 per cent or more) knew fewer than one in six of the technical terms checked by

[1] LUELLA COLE PRESSEY. The determination of the technical vocabulary of school subjects. *School & Soc.* **20** (July 1924), pp. 91-96.

[2] The author used the short form of the Socioeconomic Status Scale developed by W. H. Sewell and validated by use with farm families in the Middle West.

Comparative percentage of words which were known after winter testing at each of three grade levels

VOCABULARY AREA	KNOWN BY MORE THAN 80 PER CENT OF THE PUPILS IN GRADES			KNOWN BY 50 PER CENT OR FEWER OF THE PUPILS IN GRADES		
	7	8	9	7	8	9
Foods	14	33	38	40	21	12
Clothing	15	27	40	37	22	12
Other Areas	3	10	23	50	43	20

the tests; and 50 per cent or fewer of them knew even half of the words. Only about a third of the terms were known even by most of the ninth-graders; hence, the inappropriateness of the vocabularies in these books is clear.

The groups at each grade level made higher average scores in the winter than they had in the fall. When comparisons were made of the seventh-grade and the eighth-grade scores and of the latter and those of pupils in grade nine who had had previous instructions in grades seven and eight, the differences were significant at the one per cent level in the case of both forms of the test.

There were no statistically significant differences between the pupils in the small towns and those in the large city school in terms of initial test scores or gains made between the fall and winter testings.

There was a low positive relationship between the ratings on the Socioeconomic Status Scale and the vocabulary test scores in each population group. Ninth-graders without previous instruction in home economics (most of whom came from farm homes) did approximately as well on the tests as did eighth-graders who had been enrolled in home economics classes.

There were great differences in the test scores of pupils at each grade level. For example, pupils who were one standard deviation above the average were likely to know approximately twice as many of the words checked as were those who were one standard deviation below the average.

The foregoing findings seem to justify the following conclusions and recommendations:

1. If home economics is to be offered in the seventh and eighth grades, more suitable reading materials should be available for the pupils.
2. Both authors and publishers should realize that it is unwise to plan books for "first-year" pupils. Whether the first home economics instruction is offered in grade seven or in grade nine makes a great deal of difference in the pupils' ability to understand the vocabulary. When books are planned for the seventh grade, there should be drastic reduction in the number and difficulty of the technical terms, or these should be defined and explained.
3. Teachers should make a greater effort than in the past to teach their pupils what words mean instead of assuming that they already know.
4. Although pupils' vocabularies tended to increase with additional instruction, other factors —such as maturation and experience—were operating to determine extent of their vocabularies.
5. Pupils' vocabularies appear to be influenced more by the amount of instruction they had had in home economics than by the size of the community in which they lived or the socioeconomic status of their families.
6. In view of the fact that there were such great differences in the test scores in almost every class tested, it would seem that schools should have available various books dealing with similar content but differing greatly in their level of reading difficulty, rather than depending on a single text for a given grade.

Significant findings resulted from this investigation, but a great many questions remain unanswered. It is hoped that other home economists will be stimulated to conduct vocabulary studies and that they may find some of the answers. The following suggestions are offered for several types of investigations which might prove profitable:

In the preliminary testing, it was found that pupils had a higher meaning vocabulary when a teacher put definite emphasis on building vocabulary than when this was not done. Hence, experiments are needed to determine which methods of instruction are most successful in increasing pupils' vocabularies.

The tests developed in this study checked only a sampling of the technical words found in the textbooks. Perhaps it would be desirable to formulate questions which would check on other terms. The author's master's thesis (1952), filed in the University of Minnesota library, contains the complete list of technical words.

Studies might well test the differences between sight vocabulary and meaning vocabulary.

Prospective authors of books for the junior high school level might be helped if the opinions of home economics teachers were collected regarding the words they expect their pupils to understand. Authorities agree that as many technical words should be included in a textbook as are needed for the understanding of important concepts and that these should be *clearly defined*. Technical words not needed for this understanding should be omitted.

RESEARCH

Antioxidants in the Home Preservation of Foods [1, 2]

Flora Hanning, Lyla M. Rice, Jobelle A. Shands, Wayne Batterman, and Robert Bray

Dr. Hanning, Miss Rice, and Mrs. Shands were members of the foods and nutrition department and Mr. Batterman and Dr. Bray of the animal husbandry department at the University of Wisconsin at the time this study was made. Dr. Hanning is a professor of home economics at the University of Wisconsin, Miss Rice is an assistant professor of foods and institution management at the University of Tennessee, Mrs. Shands is a homemaker in Madison, Mr. Batterman is now employed by the Hormel Packing Company in Austin, Minnesota, and Dr. Bray is an associate professor of animal husbandry at the University of Wisconsin.

Since there are still large quantities of lard and pork sausage prepared at home and stored in rural areas, improvements in methods such as those discussed here are of particular interest to teachers and adult education leaders in rural areas.

THE flavor changes which often develop during the home storage of fatty foods may be caused by oxidation. Antioxidants, usually with an acid synergist, have been suggested to reduce such oxidative rancidity. The effectiveness of such agents varies with different fats and different synergists; hence testing of their effectiveness must be done under the normal conditions of use. Furthermore, consideration must be given to the convenience of use and to possible health hazard.

Studies on Lard

In the preliminary studies on lard, the active oxygen method was used to serve as a guide for less rapid tests. The active oxygen method involves heating the fat and bubbling air through it at a constant rate and then noting the length of time required for the fat to become rancid. Comparisons thus are made of the antioxidant treatments in terms of hours of keeping time until the aroma suggests rancidity and the chemical test for peroxides verifies it (*1*). Long storage at room temperature was another method used to test the effect of some of the antioxidants on lard, with the development of rancidity expressed in terms of peroxide values.

By these methods, it was learned that alpha tocopherol had some antioxidant effect which was greatly enhanced by ascorbic acid. Nordihydroguaretic acid (NDGA) was extremely potent and ascorbic acid likewise increased its effectiveness in retarding rancidity. Of the natural sources of tocopherols tested—oat flour concentrate, wheat germ oil, or hydrogenated vegetable shortening—the shortening showed promise and was widely available. The beneficial effect of vegetable shortening at either a 3 per cent or 5 per cent level was enhanced by the addition of cream of tartar. Cream of tartar was tried because it, too, was generally available in the home or on the grocers' shelves and could serve as an acid synergist. A modified lard, to which had been added an antioxidant during manufacture, had little inhibitory effect on rancidity at a 3 per cent level.

Since NDGA (nordihydroguaretic acid) was very potent, a very little of the pure substance would be needed. When a commercial product containing NDGA was offered for sale,[3] this was tested also and found to be very effective but inconvenient to purchase.

Home results. After the laboratory testing had indicated certain treatments were preferable, a field trial was instituted whereby farm women, as they rendered their lard, kept both some quart jars of untreated lard and other jars from the rest

[1] This work was supported in part by a grant from the research committee of the graduate school from funds provided by the Wisconsin Alumni Research Foundation.

[2] Published with the approval of the director of the Wisconsin Agricultural Experiment Station.

[3] By the Wm. J. Stange Co., Chicago.

of the lard which was given an antioxidant treatment. Mimeographed direction sheets and report blanks were sent to those who had promised the county home agents that they would be willing to co-operate in this on-the-farm experiment. Reports were sent every two months by a small group of farm women until the treated sample of lard was judged rancid by aroma and flavor as it was used for frying eggs, or until the supply was exhausted. The two treatments suggested were the addition of hydrogenated vegetable shortening with cream of tartar and the commercial product containing NDGA.

Only a few persons saved paired samples of treated and untreated lard and sent in reports long enough to be counted in the survey. For the untreated lard, there were 6 samples which became rancid in 4 months, 12 in 6 months, 5 in 9 months, 3 in 12 months, and 2 in 14 months, thus giving a mean of 6.9 months of possible use. Of 11 cases in which hydrogenated vegetable shortening was added, the lard remained usable for 6 to 18 months when many of the supplies were exhausted. The average storage time before rancidity was more than 12 months and was 5.7 months longer than the untreated lard from the same batches. In 8 cases, the commercial product NDGA was added to lard. One of these treated samples became rancid in 10 months; all the others were still good at 14 or 16 months when the supply was exhausted. This treatment made the lard keep at least 8.7 months longer than the untreated sample. The inconvenience of obtaining supplies of the NDGA compound greatly reduces its practical use. The general availability of shortening is of special value. Of additional interest regarding the use of hydrogenated shortening was the comment of several of the women that the lard with which the shortening and cream of tartar were mixed was whiter in color and more easily handled in cooking than was the plain lard. This may have been due to an emulsifier present in the shortening, or more adequate stirring of the lard during cooling, or because of a blending of fats.

Frozen Pork Sausage

Sausage was made from pork of five hogs fattened on a grain ration, predominately corn. To each lot of 25 pounds of the mixed ground meat, 6 ounces salt, 1 ounce sage, 1 ounce pepper, and the antioxidant materials were added and then the sausage was reground and hand mixed twice. One-pound portions were double wrapped in a good quality locker paper, frozen, and stored at 0°C. At two-month intervals, peroxide values were determined on the fat from the sausage by the Wheeler method (*2*) and organoleptic tests made.

A panel of judges evaluated the flavor of sausage patties, oven-fried at 425°F, and the aroma of other patties, heated in casseroles at 350°F. Both were offered hot, the cover being lifted momentarily from the casserole for judging aroma. In all cases, desirable flavor or aroma was given a score of 10, a lower score for a more rancid or less desirable product. The judges were experienced in meat scoring from previous panel work. The same judges were present at each of the three scoring sessions for each storage period, the number of judges ranging from 6 to 10 for any one period. A sample of recently frozen or of fresh sausage was given to the judges just prior to their evaluation of the test samples. Randomization of order of sample testing and a definite statistical plan were followed.

The peroxide values obtained on the fat of the sausage and the mean scores for flavor and aroma for each storage period are given in the table. It is to be noted that the peroxide formation was retarded in the two lots to which NDGA and citric acid were added. The data of the flavor and aroma scores were subjected to the statistical analyses of variance but are not presented in detail. The differences between treatments were significant or highly significant at 8, 16, and 24 weeks' storage for aroma and at 16 and 24 weeks' storage for flavor. The significance of the differences becomes more definitive by a comparison of the means and of the least significant differences between means computed from the statistical analysis. The sausage having no added antioxidant and that to which an NDGA preparation had been added had the higher scores. The judges disliked the aroma and flavor of the sausage to which had been added the commercial product containing propyl gallate or the greater amount of NDGA and citric acid. The texture of the sausage containing the propyl gallate antioxidant was disagreeable; in the raw state, it had too much the consistency of salve; frequently the judges wrote comments regarding the disagreeable texture of the cooked sausage although they were not asked to score texture. The mean scores show very clearly the decline in flavor and aroma with longer storage. This decline occurred earlier in some of the lots to which antioxidant preparations were added than in the untreated sausage. Thus, there is no advantage in adding an antioxidant to sausage. Seemingly, the spices contribute sufficient protective action.

Frozen Fish and Chicken Thighs

Lake Michigan trout and white fish, and chicken were treated with antioxidant and frozen within 24 hours of being caught or killed. Storage was at −17°C for 38 weeks for fish and 30 weeks for the chicken thighs. Both were cooked in casseroles and presented to a tasting panel for flavor and aroma tests as for the sausage.

Both the trout and white fish were poor in quality after 8 weeks in the freezer and were not improved by either antioxidant treatment, dipping in 1 per cent ascorbic acid solution or in lard which contained a commercial preparation of butylated hydroxyanisole and propyl gallate. There appeared to be no difference in the chicken due to the treatment with the same lard dip as was used on fish. After 30 weeks' storage, the untreated frozen chicken thighs were rated acceptable in both flavor and aroma. In both the white fish and in the chicken, the judges commented upon a disagreeable aroma when the lard-antioxidant dip was used and the scores reflected this dislike. The frozen trout was somewhat less unpleasant.

The effect of antioxidants on the quality of pork sausage in freezer storage

NUMBER OF WEEKS STORAGE	UNTREATED SAUSAGE	SAUSAGE CONTAINING 0.05 PER CENT OF BOTH NDGA AND CITRIC ACID	SAUSAGE CONTAINING 0.1 PER CENT OF BOTH NDGA AND CITRIC ACID	SAUSAGE CONTAINING COMMERCIAL PRODUCT CONTAINING NDGA	SAUSAGE CONTAINING COMMERCIAL PRODUCT CONTAINING PROPYL GALLATE	LSD* 5 PER CENT LEVEL
			Peroxide values†			
8	1.1	1.2	3.6	1.1	5.0	
16	3.8	1.2	3.7	1.9	6.2	
24	6.8	4.6	4.4	8.5	21.0	
32	8.4	5.1	4.9	11.5	—	
40	18.0	7.2	6.0	21.5	—	
			Mean scores for aroma‡			
8	8.4	8.4	7.5	8.4	6.9	0.67
16	7.1	6.3	5.3	7.6	5.2	1.05
24	6.8	6.4	5.1	6.7	2.9	1.12
32	5.3	5.9	5.4	5.2	3.7	NA
			Mean scores for flavor‡			
8	7.9	7.3	6.7	9.1	7.8	NA
16	7.7	6.1	4.3	8.2	5.6	0.98
24	6.9	6.4	2.9	6.4	2.6	1.41
32	4.8	5.5	3.4	3.6	3.4	NA

* Least significant difference between means as computed from the analysis of variance data. NA indicates that at that period, the mean square in the analysis of variance was not significant; hence the use of a least significant difference is not justified.

† Millequivalents per kilogram.

‡ Most desirable aroma and flavor was scored 10.

Discussion and Recommendations

A number of factors are to be considered in the use of antioxidants: the need for and effectiveness in any particular food, the possible hazard to health, their availability and ease of use, and their capacity for inducing unpleasant color, flavor, or texture. Thus, antioxidant treatment of pork sausage is not of advantage whereas a much more favorable result was produced on lard. All the antioxidants used in this study have been approved by the Bureau of Animal Industry as substances which are not a hazard to health when used in the amounts needed to retard rancidity.

On the basis of these studies and taking into consideration the availability and ease of use, the following recommendations are made:

1. For home treatment of lard—Melt (140°F, if thermometer is available) 3 pounds hydrogenated vegetable shortening. Mix well with 5½ teaspoons cream of tartar. Add to about 10 gallons lard and cracklings while still hot. Stir well and strain. Or, add to 10 gallons freshly made lard which has been melted and stir thoroughly.
2. For frozen pork sausage, fish, or chicken—no antioxidants.

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Idaho Association Is First with 10 Per Cent More in '53-'54

What's more—Idaho vocational homemaking teachers are 100 per cent AHEA members.

Home Processing of Frozen and Canned Apple Slices

Elsie H. Dawson, Olivia A. Hammerle, and Mary Smith

Mrs. Dawson is a food specialist in the food and nutrition division of the Bureau of Human Nutrition and Home Economics in the United States Department of Agriculture. Both Miss Hammerle and Mrs. Smith were food specialists in the Bureau at the time the research reported here was conducted.

MANY studies have been made on different methods of treating apple slices to prevent their discoloration and excessive softening in canning and freezing. Hohl (*1*) has summarized the problem of discoloration and other changes due to oxidation by stating that these changes can be prevented by heat treatment, using hot water, steam, or hot sugar solutions; exclusion of air by using a sugar solution to cover the cut fruit completely or by vacuumizing; and chemical treatment through the use of sulfur dioxide, ascorbic acid, citric acid, or other chemicals.

In using ascorbic acid in frozen apple slices, Bauernfiend and Siemers (*2*) have recommended 150 to 200 milligrams ascorbic acid per pound of finished pack for satisfactory results. Knight and Paul (*3*) found that a sodium bisulfite dip was the best of several treatments used for the prevention of browning in frozen sliced McIntosh apples and that an ascorbic acid dip was best for prevention of browning in Rhode Island Greening, Jonathan, and Northern Spy apples. MacArthur (*4*) reported that ascorbic acid was not practicable in preventing browning but found that a 2- to 5-minute dip in potassium metabisulfite was successful. Luther and Cragwall (*5*) reported that ascorbic acid alone is impractical where enzymes are so active that the added ascorbic acid is destroyed in a relatively short time and affords only limited protection. Therefore, they recommend the combined use of citric and ascorbic acid to inactivate the enzymes. Powers and Esselen (*6*) reported that ascorbic acid penetrated the fruit too slowly to be entirely satisfactory. In the use of sulfites, the Western Regional Research Laboratory of the U.S. Department of Agriculture (*7*), Powers and Esselen (*6*), and MacArthur (*4*) stress the importance of an adequate holding time of the packaged product before freezing.

Lee (*8*) has suggested a steam blanch for 90 seconds, and the Eastern Regional Research Laboratory (*9*) recommends a 1½- to 2-minute steam blanch to prevent browning. Bain (*10*) and Cruess and Seagrave-Smith (*11*) also recommend a preliminary blanch to prepare apples for freezing, but MacArthur (*4*), Bauernfiend and Siemers (*2*), and the Western Regional Research Laboratory (*7*) report that blanching has definite disadvantages. Powers and Esselen (*6*) found that blanching was effective in preventing discoloration, but the texture of the apple slices was softened by the heating.

Many investigators have reported that calcium salts are useful in preventing excessive softening of apples in canning and freezing. Powers and Esselen (*6*) reported that a calcium treatment is most effective with frozen apple slices and the effect is *definite* but not so great with canned apple slices. The amount of calcium needed depends upon the firmness of the apples, the length of time they have been in storage, and the degree of firmness desired. Kertesz (*12*), Holgate and Kertesz (*13*), Esselen, Hart, and Fellers (*14*), Baker (*15*), and the Eastern Regional Research Laboratory (*9*) recommend a dip in a calcium chloride solution to retain original firmness.

The experiments reported in this paper were designed to explore some of these methods of treating apple slices and develop procedures in preparation of apples for their use in home canning and freezing to give high quality products. Only those methods were selected that were considered as practical for application in the home. In previous studies in this Bureau, the use of sulfur dioxide was found to impart an undesirable flavor to the frozen product; therefore, this method was not included. The use of sodium chloride in water solution or vinegar and sodium chloride in water

solution, which are common practices in food preservation (*16, 17*), was included for comparative purposes.

Procedure

York Imperial apples were obtained from the Bureau of Plant Industry, Soils, and Agricultural Engineering and stored for approximately three months at 38°F. The apples were sliced and treated in a number of different ways to prevent discoloration and to aid in retention of flavor and texture during freezing and canning.

In the preparation of the frozen apple slices, the following variables were studied: (1) holding 1 quart of apple slices for 15 minutes in a gallon of 4 per cent sodium chloride solution; (2) same as (1) with two 35-grain calcium-sulfate tablets per gallon of 4 per cent sodium chloride solution; (3) preheating in steam for 2 minutes; (4) packing dry, with sirup, or in dry sugar; and (5) adding 125 milligrams ascorbic acid per pint in sirup and dry sugar packs. For the sirup packs, a sirup made of 1 cup sugar and 3 cups water was used in the proportion of 1 cup sirup to 300 grams fruit per pint package. For the dry sugar pack, a 1 to 5 ratio by weight of sugar to fruit was used in the proportion of 60 grams of sugar and 300 grams fruit per pint package. Duplicate samples of apple slices were packaged in moisture-vapor-resistant cellophane bags, sealed by heat, and placed in paperboard cartons. The samples were frozen and stored at 0°F.

In the preparation of canned apple slices, the following variables were studied: (1) rinsing 1 quart peeled, quartered apples in a solution of 2 tablespoons vinegar and 2 tablespoons sodium chloride per gallon water before slicing; (2) rinsing in sodium chloride and vinegar solution as in (1) with one 35-grain calcium-sulfate tablet added per pint jar; (3) after packing, adding 125 milligrams ascorbic acid per pint untreated prepared apples; and (4) packing without any pretreatment. For raw pack, apple slices were packed in glass pint jars and a hot sugar sirup made of 1 cup sugar to 3 cups water was poured over the fruit. For precooked pack, the slices were boiled 5 minutes in a sirup made as above, packed hot in the jars, and covered with hot sirup. Duplicate samples of the various packs were sealed and processed for 15 minutes in a boiling water bath, then cooled to room temperature and stored at 70° to 75°F.

Quality was determined after two storage intervals: 2 weeks and 8 months. For testing, the frozen apples were removed from the freezer and thawed for 2 hours at room temperature before serving. To compare the amount of canned fruit in a jar packed raw and precooked, canned samples were transferred to a U.S. No. 8 brass sieve to separate solids and liquid; weights were recorded and the solids and liquid again combined. Duplicate samples consisting of 3 apple slices, covered with juice if any was available, were served at room temperature on small coded white china plates to a panel composed of four food specialists with experience in evaluating food quality. Color, flavor, and acceptability were the quality factors rated on 5-point scales with 5 the highest possible score and 1 the lowest. Texture was rated on a scale ranging from 10 for very tough to 5 for tender but firm, to 1 for soft and mushy. Color in terms of hue, value, and chroma was determined by comparison with Munsell color standards (*18*). Tenderness of the canned apple slices was determined with an apparatus similar to the one designed by Bonney, Clifford, and Lepper (*19*).

Results and Discussion

The York Imperial apples used in this study were firm, tart, and juicy. Although light in color when freshly sliced, the raw apples darkened rapidly on exposure to air.

Frozen Apple Slices

Frozen sliced apples packed raw without sugar or sirup darkened excessively within the first 2 weeks of freezer storage as shown by Munsell color readings and mean color scores (table 1). Readings and scores were as poor after 8 months' storage as they were after 2 weeks. Frozen raw slices packed in sugar or in sirup were better in color than were the untreated apples. Munsell color readings indicated no differences among the various sugar and sirup packs after 8 months' storage. However, judges' color scores, made on different samples of the same materials, suggest that the addition of ascorbic acid improved the color of apples soaked 15 minutes in 4 per cent salt solution. The addition of calcium sulfate to the salt solution used for soaking appears to have been equally effective on the basis of panel scores for color. Preheating in steam preserved the light color in the frozen product, whether packed without sugar, in dry sugar, or in sirup. Raw apple slices packed in sirup with ascorbic acid added and preheated slices packed in sirup with no ascorbic acid added ranked highest in color after 8 months in frozen storage.

After freezing and thawing, the apples retained

fairly well their original crispness and plumpness. Average scores for texture ranged between 4.1 and 5.5 (table 1). Some of the samples were slightly limp and others slightly tough, but in most cases the scores were near the optimum of 5.0. The addition of the calcium-salt tablets had very little effect on the texture of frozen apple slices of this variety.

After freezing and thawing some of the natural apple flavor was lost in all the frozen samples. Both sugar and sirup packs were described as having a weak apple flavor. The difference between heated and unheated samples was slight. Dry-packed raw apple slices developed a strong off-flavor during storage. Dry-packed apples preheated in steam for 2 minutes were comparable in apple flavor, disregarding relative sweetness, to steamed apples packed in sugar; those packed in sirup were rated slightly higher than those packed dry or in sugar.

Raw untreated apple slices packed dry, without sugar or sirup, were rated poor in general acceptability. Raw apple slices packed in sugar or in sirup were rated fair in general acceptability, but with the addition of ascorbic acid they were rated good and had acceptability scores that were comparable to those for preheated apple slices packed in sugar or sirup without ascorbic acid added.

Canned Apple Slices

Canned apple slices in both raw and precooked packs darkened slightly during 8 months' storage, but higher Munsell *value* readings indicated that less darkening took place in the raw pack than in

TABLE 1

Quality of frozen York Imperial apple slices as affected by various preliminary treatments

PACK AND TREATMENT	STORAGE TIME AT 0° F	MUNSELL COLOR READINGS*			PALATABILITY PANEL SCORES†			
		Hue	Value	Chroma*	Color	Texture	Flavor	Acceptability
Raw—no preheat treatment								
Dry pack—no preliminary treatment	2 weeks	17.5	5	8	1.0	—	2.0	1.2
	8 months	17.5	5.2	8	1.2	4.1	1.2	1.2
Sugar pack:								
15-minute soak:								
4 per cent salt solution	2 weeks	22.5	8	5	3.4	—	3.0	3.0
	8 months	25.0	9	6	3.1	4.6	3.0	2.9
4 per cent salt solution; 125 mg ascorbic acid added to prepared apples in pint jar	2 weeks	21.25	6.9	5	3.9	—	3.1	3.2
	8 months	25.0	8.8	6	4.5	5.1	3.4	3.8
4 per cent salt solution with two 35-grain calcium sulfate tablets added per gallon	2 weeks	23.75	8	5	4.5	—	3.0	3.4
	8 months	25.0	9	6	4.4	4.4	3.0	3.2
Sirup pack:								
15-minute soak:								
4 per cent salt solution	2 weeks	21.25	6.9	6	3.5	—	3.4	3.2
	8 months	25.0	9	6	3.2	5.0	2.5	3.0
4 per cent salt solution; 125 mg ascorbic acid added to prepared apples in pint jar	2 weeks	20.6	6.8	5.5	5.0	—	4.0	4.2
	8 months	25.0	9	6	4.9	5.5	3.2	3.9
Preheated in steam 2 minutes								
Dry pack—no preliminary treatment	2 weeks	25.0	8	7.5	4.5	—	3.0	3.6
	8 months	27.5	8	7	4.0	4.8	2.8	3.1
Sugar pack:								
15-minute soak:								
4 per cent salt solution	2 weeks	25.0	8	7.5	4.2	—	2.9	3.1
	8 months	27.5	8	6	4.5	4.9	3.6	3.8
4 per cent salt solution; 125 mg ascorbic acid added to prepared apples in pint jar	2 weeks	25.0	8	7	4.5	—	3.2	3.9
	8 months	27.5	9	6	3.2	4.8	2.9	3.0
4 per cent salt solution with two 35-grain calcium sulfate tablets added per gallon	2 weeks	25.0	8	7.8	4.5	—	3.4	3.9
	8 months	27.5	8	7.5	4.4	5.4	3.2	3.6
Sirup pack:								
15-minute soak:								
4 per cent salt solution	2 weeks	25.0	7.5	8	3.8	—	3.8	3.6
	8 months	25.0	8	7	4.8	5.2	3.5	3.8

* Hue is expressed by numbers in terms of 100 steps in the Munsell color circuit: 22.5, referred to here, is described as reddish yellow. Value refers to lightness and darkness and the scale extends from 0, black, to 10, white. The Munsell notation for chroma extends from 0 at gray to 10 or more for the strong colors.

† A 5-point scale was used for each factor with 5 as the highest possible score and 1 the lowest, except texture scores, which ranged from 10 for very tough to 5 for tender but firm, to 1 for soft and mushy

the precooked pack (table 2). In *chroma,* the raw-packed samples were rated slightly higher than the precooked-packed samples, indicating that the raw-packed apples had a more intense yellow color.

in either pack. The addition of one 35-grain calcium sulfate tablet adversely affected the flavor of all canned apple slices.

Scores for general acceptability indicated no

TABLE 2

Quality of canned York Imperial apple slices as affected by various preliminary treatments

PACK AND TREATMENT	LENGTH OF TIME IN STORAGE AT 70 TO 75° F	MUNSELL COLOR READINGS*			PALATABILITY PANEL SCORES†				TENDEROMETER READINGS‡
		Hue	Value	Chroma	Color	Texture	Flavor	Acceptability	Grams of Mercury
Raw pack									
No treatment	2 weeks	22.5	7.8	8.5	4.0	5.9	4.2	3.9	158.5
	8 months	22.5	6.5	6	4.0	5.0	3.4	3.6	150.8
125 mg ascorbic acid added to prepared apples in pint jar	2 weeks	22.5	8	6	3.8	5.4	3.8	3.6	200.3
	8 months	22.5	7.2	6	3.1	4.2	3.0	3.1	128.9
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water	2 weeks	22.5	8	7	3.8	5.5	4.2	3.8	156.3
	8 months	22.5	7.5	6	3.2	4.9	3.2	3.5	111.4
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water; one 35-grain calcium sulfate tablet added to prepared apples in pint jar	2 weeks	22.5	8	6.5	3.8	8.4	2.8	2.8	226.5
	8 months		7.5	6	2.5	5.2	1.8	1.9	189.2
Precooked pack									
No treatment	2 weeks	22.5	8	6.2	4.0	3.5	3.4	4.0	77.8
	8 months	22.5	6.2	4	2.8	3.2	2.5	2.6	69.6
125 mg ascorbic acid added to prepared apples in pint jar	2 weeks	22.5	7.8	6	4.2	4.1	3.8	4.0	63.0
	8 months	22.5	6.8	6	3.9	3.8	3.2	3.5	79.2
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water	2 weeks	22.5	7.8	6	3.0	3.8	3.2	3.5	66.0
	8 months	22.5	7	4	2.5	4.0	3.0	2.8	94.5
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water; one 35-grain calcium sulfate tablet added to prepared apples in pint jar	2 weeks	22.5	7.8	6	2.6	5.8	2.2	2.2	185.5
	8 months	22.5	7	5	2.5	5.4	2.2	2.6	120.2

*, † See corresponding footnotes to table 1.

‡ Average of 3 readings for samples stored 2 weeks and 10 readings for samples stored 8 months.

Raw-packed canned apple slices in general had firmer texture than had the precooked canned slices. They were quite firm, yet tender, while the precooked samples were slightly soft or mushy. Rinsing in a vinegar and salt solution had very little effect on the texture of either precooked-packed or raw-packed apple slices. Since the York Imperial variety of apples held its shape fairly well during raw-pack processing, the addition of calcium sulfate was not considered necessary in this pack. However, calcium sulfate did improve the texture of the precooked apple slices. Objective measurements of texture by means of the tenderometer confirmed the opinions of the palatability panel.

A slightly better flavored product resulted from the raw-pack process than from the precooked pack when freshly canned, but after storage for 8 months the flavor scores for precooked-packed and raw-packed apple slices were similar. The addition of ascorbic acid did not improve flavor retention

great differences between the precooked-packed and raw-packed canned apples. In some cases the raw pack rated better than did the precooked pack, whereas the reverse was true in other cases. Acceptability scores for both precooked and raw packs decreased after storage for 8 months. Acceptability scores for calcium-treated apple slices were low in all cases.

Considerably more apples and less liquid were contained in a pint of precooked canned apple slices than in a pint of raw-packed canned slices (table 3). In both precooked and raw packs, the apple slices gained in weight after storage for 8 months; the weight of drained solids increased and weight of liquid decreased.

For use in pies and other baked products, a dry pack is generally considered more desirable than a juicy pack. The cold-packed apple slices would be usable for fruit cocktails and salads where the firmer texture is desired.

TABLE 3

Drained weights of canned York Imperial apple slices as affected by various preliminary treatments

PACK AND TREATMENT	WEIGHT OF CANNED APPLES*			
	Stored for 2 Weeks		Stored for 8 Months	
	Solids	Liquid	Solids	Liquid
	grams	*grams*	*grams*	*grams*
Raw pack				
No treatment	268	138	289	101
125 mg ascorbic acid added to prepared apples in pint jar	292	115	319	97
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water	274	92	314	46
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water; one 35-grain calcium sulfate tablet added to prepared apples in pint jar	287	114	291	98
Precooked pack				
No treatment	410	48	438	4
125 mg ascorbic acid added to prepared apples in pint jar	414	11	412	23
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water	415	46	414	24
Rinsed with solution of 2 Tbsp salt and 2 Tbsp vinegar per gallon water; one 35-grain calcium sulfate tablet added to prepared apples in pint jar	380	37	384	2

* U. S. No. 8 sieves were used for draining canned apple slices.

Summary

For freezing apple slices, some treatment is needed to retard changes in the natural color, texture, and flavor of the fresh apples. Preheating in steam or packing the raw apple slices in dry sugar or sugar sirup with added ascorbic acid was found to be fairly successful with York Imperial, the variety studied.

In canning apple slices, the raw-pack method resulted in slightly higher scores for texture and flavor than the precooked-pack method. The addition of one 35-grain calcium sulfate tablet improved the texture of precooked apples but adversely affected flavor of all canned apples. Raw-packed canned apples of the York Imperial variety had good texture without use of calcium salts. The addition of 125 milligrams ascorbic acid per pint of canned apple slices had little effect on quality of the product.

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PHF Apologies to Iowa, North Carolina, and Rhode Island

The Permanent Headquarters Fund sincerely regrets that Iowa and North Carolina were omitted from the "Over the Top" banner at the annual meeting and that "over the top" marks were omitted for Iowa and Rhode Island in the report of state associations on page 523 of the September Journal.

COLLEGE CLUBS

MRS. CAROL BEST, *EDITOR*

A Place for Everyone in "Clubs-Within-a-Club"

MITZE INOUYE
Michigan State College

Have you ever belonged to an organization that had so many members that most of them were members in name only? Our home economics club could easily be that, for we have more than 600 home economics majors on our campus. However, we have formed interest groups and a freshman and sophomore group within the club where each person is more apt to gain leadership experience. The groups have their own activities along the lines of their main professional interests—foods and nutrition, institution administration, child development, related art, retailing, and teaching. An executive council co-ordinates all projects and arranges for a general meeting of the total home economics club membership once each term.

The retailing section of our club joined forces last year with the Union Board, an all-college student group, so that our retailing majors could experience what is involved in producing a fashion show. They also secured the help of East Lansing merchants. The show developed into a major campus social event which attracted 200 "standees" and others who had to be turned away. This activity of a club section brought campus-wide publicity to the entire club and nation-wide publicity through an article in *Women's Wear Daily*.

Our home economics education majors developed their major project during a "hen session" several years ago. As Christmas vacation was drawing near a number of potential teachers conceived the plan to visit high schools during vacation and tell students about the opportunities in home economics teaching. Recruiting and promotion for Michigan State's School of Home Economics were their aims, but they also hoped to gain experience compiling and presenting material to young people.

These are just two examples of ideas developed by our "clubs-within-a-club." All of our sections have similar professional projects. Each member of our larger club finds a place where her abilities and interests will be developed.

Left to right, Dorothy Bender, Sue Markle, and Alice Yost with nurse as they wait their turn to donate blood

Help for the Red Cross

LOIS DZAPO and DOROTHY BENDER
Hiram College (Hiram, Ohio)

We recommend as one of the most satisfying projects for a college club that of helping to obtain blood for the Red Cross. It involves canvassing and publicizing and scheduling—and handling of minor emergencies which arise when you think your donors are completely organized—but the knowledge that your efforts save lives makes you want to start plans for next year's drive as soon as one campaign is ended.

Our job this year, as outlined by the Red Cross organization in the nearest city, was to solicit persons in our college community and arrange for times they could be taken to the blood center.

In a period of three hours 60 students and faculty members had given their blood to the Red Cross—a good record, the Red Cross tells us, for a college of 400 students located in a town where there are 200 permanent residents. Our membership is 25.

It was during the last war that this Red Cross project was first carried out by our club. At that time the students canvassed faculty and townspeople to ask them to use rationed gasoline to take donors to the nearest blood center.

Elaine Sullivan, Odette Dutrieux of Paris (AHEA's 1952-53 Helen W. Atwater fellow), and Helen Croshere at the University of Edinburgh

Report of International Congress

HELEN CROSHERE and ELAINE SULLIVAN
Framingham (Massachusetts) State Teachers College

Our first day in the registration hall at the Eighth International Congress on Home Economics found us in the midst of 1300 women speaking in different languages. It was this language barrier and the size of the group, perhaps, that made it necessary to conduct the meetings in a formal manner, with plenary discussion of previously submitted reports.

We were able to talk with the women from many nations while on sightseeing tours and during social events sponsored by the city of Edinburgh. We found that home economics curriculums vary considerably from country to country. When we visited two Scottish colleges of "domestic science," for example, we observed that the curriculums emphasize practical work and do not give the theoretical knowledge of our courses.

Ideas from Here and There

Dinners at the **University of Toledo** help keep college club attendance up. Members live in all parts of the city, but stay after classes for a four-o'clock business meeting followed by program and dinner. Girls volunteer eagerly for dinner committee work because it gives experience in serving large numbers.—SALLY AMES

Four of us from the **University of Massachusetts** experienced television bright lights in a Boston studio last winter when we took part in an Extension Service presentation, "What You See in '53." Nancy Jane Allen showed new natural and synthetic textiles, Ruth Davenport told what she had found out in her investigation of what is new in household equipment, and Martha Okum demonstrated how the high cost of house upkeep might be checked through self-installation of new floor and wall coverings. I made predictions on food supplies and prices, using a basket of groceries as visual aid.—JANE HARTMAN

At **Stout Institute,** we start the freshmen on a project of their own, a "Green Tea," to help them overcome shyness. They plan the menu and serve as hostesses at the tea, which is traditionally scheduled for a date near St. Patrick's Day.—CAROL SCHILSTRA

A newsletter for college clubs was started in **West Virginia** last year and circulated to the 12 clubs by the state college club reporter. She was assisted in preparing two issues by reporters from each club.—NANCY MATTHEWS

A trip abroad was the theme of the St. Olaf College home economics club annual style show which climaxed the club's recruitment day for high school seniors. The group below dramatized what one might see in the display window of a Paris dress shop.

Jane Vawter (left), a graduating senior and outgoing college club president, receives her AHEA membership card from Marcia Schuman, incoming president, at the University of Colorado college club spring banquet which honors graduating seniors. Other new AHEA members looking on are Rita Dunn, Margaret Brady, Patricia Anderson, Elaine Sterling, and Mary Dee. "We nearly always have 100 per cent of our graduating seniors joining the American Home Economics Association," writes Elaine Sterling.

The BHNHE Reporting

EMILY C. DAVIS
Bureau of Human Nutrition and Home Economics

Knowledge of human needs for "essential" fatty acids—nutrients provided by fats and oils in diet—is being advanced by research at the Medical Branch of the University of Texas under a contract sponsored by the BHNHE.

It has been found that quantities of linoleic and arachidonic acids in blood serum are higher in young children than in infants and significantly higher among well-nourished than among malnourished children, some of whom showed poor capability to absorb fat. A semi-micro method developed for this work employs a relatively small blood sample, making it practicable to determine the amounts of these nutrients in blood serum.

It appears definite that children can be well nourished when from 3 to 5 per cent of the calories in their food are derived from linoleic acid. Minimum requirement may be somewhat less. Diets of some of the well-nourished children studied contained only negligible amounts of arachidonic acid, which indicates that the normal child's body can manufacture this nutrient when adequate amounts of linoleic acid are in the diet.

Familiar vegetables are credited with helping out on protein in daily diets, but values of many plant proteins are yet to be determined. To extend its amino acid research, the Bureau has contracted for some selected vegetables from the Southwest to be analyzed at the University of Arizona.

With microbiological methods, amounts have been determined of 10 essential amino acids in fresh and dried black-eyed peas, broccoli heads and stalks, raw and roasted peanuts, pinto beans, potatoes, spinach, sweet potatoes. When the investigators compared these vegetable proteins with whole egg, as an example of animal protein, they found the vegetables most frequently low in three amino acids: isoleucine, leucine, and methionine.

New facts relating shell egg grades to home uses are being gained in co-ordinated studies which the Bureau arranged by contract with the state university or college in three states: Indiana, Louisiana, and Washington. At the annual meeting of the Poultry Science Association in Vancouver, B. C., in August, Mrs. Elsie Dawson, BHNHE food specialist, and a representative of each participating state shared in a symposium at which the purpose, interregional aspects, and findings of the project were discussed.

The laboratory work has been completed, and reports in preparation will show relationships of market grade to cooking quality and flavor of eggs prepared in various ways: cooked in shell, poached, in baked custard, and in angel food cake.

Harder in some ways, easier in others—so goes the homemaking job in this country. The home economist, watching trends, finds her own job increasing, whatever happens. Mrs. Gertrude Weiss, head of BHNHE family economics research, included the following points in a recent talk to a home economics group on the home economist's responsibility to a changing people:

Homemaking is becoming harder because more women work also outside the home, and there are fewer domestic employees in relation to the number of families and fewer adults in households to share work. In these situations, homemakers need and welcome practicable short cuts and help toward efficiency. Homemaking is becoming easier because families have so much household equipment and buy so much service with food. Home economics must provide training suitable for these trends in schools and adult education programs. In nutrition, for example, teaching needs to include food selection in restaurants as well as meal planning in the home.

The move to cities and suburbs, another important trend, is increasingly putting living on a cash basis—making training in selection of goods and in managing the family budget a more important part of home economics.

Proceedings of the National Food and Nutrition Institute, mentioned last April, came off the press last summer. To obtain a copy address the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

Bulletins old but partly usable are being brought up to date in a revision program at the U. S. Department of Agriculture, in which the Bureau is sharing. Completely made over is the Bureau's booklet on pressure canners, which had wide usefulness during World War II. This and less extensively revised publications recently off the press are: "Pressure Canners—Use and Care," HG-30; "Meat for Thrifty Meals," HG-27; "Root Vegetables in Everyday Meals," HG-33; and "Tomatoes on Your Table," L-278.

Copies are available from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

In Short

Food Supply for Home Use in a Disaster Program

JENNIE S. WILMOT
University of Texas

Possible disaster due to war has emphasized Defense and Disaster Relief efforts and has called attention to the fact that since modern war is "total," preparedness must also be "total." This includes providing food for emergency use. Natural disasters, as floods and tornadoes, and illness may also interfere with a family's food-buying habits.

For target areas, the Civil Defense Administration recommends storage of a seven-day supply of food for the family plus one or two other persons. In other areas, a three-day supply is considered adequate. Assembled gradually and used and replaced to avoid staling, this food is part of a desirable marketing plan in any home.

In connection with the Defense and Disaster Relief program, some members of the Texas State Nutrition Council have prepared material to assist families in both target and other urban areas and in rural areas in choosing and storing such a reserve food supply. The guide used was the Texas Food Standard, which is somewhat more detailed than the Basic Seven Food Groups. Suggested food lists under the various groups have been made. Actual food chosen should be well liked by the family and easy to prepare. Foods to be avoided are those that increase thirst, e.g., very sweet and very salty foods.

Food for one day may well be in the refrigerator, freezer, or a combination of the two. Canned foods may be stored in a cupboard whose shelves accommodate two rows of cans. If the potential disaster is likely to shake the house, this cupboard should be locked. Glass containers should be packed in the divided cartons in which they are marketed. In areas where there are storm cellars, they provide good storage space.

Some food needs no special preparation. However, much canned food is more palatable if heated, and frozen food may require heating or cooking. Heating devices include an indoor or outdoor fireplace, a charcoal burner, a chafing dish, and a food warmer in which liquid fuel may be used.

Sylvia Cover, new chairman of the Texas State Nutrition Council, inspects a display of foods for emergency use, arranged by Miss Wilmot, former state Nutrition Council chairman, for the Texas Home Economics Association and the Nutrition Council.

About two and one-half quarts of liquid per person per day must be provided. Canned and bottled juices and liquid on canned fruits and vegetables are part of this, but water for preparing tea and coffee, diluting evaporated milk, reconstituting dried milk, and drinking must be included. Probably four 10-ounce cans per person per day would suffice. Water may be canned at home. Sterilized cans or jars are filled full of boiling water, sealed, and processed for 15 minutes at 15 pounds pressure.

At a meeting of the Texas State Nutrition Council and Texas Home Economics Association, some phases of the Defense and Disaster Relief program were explained, with an exhibit showing a three-day food supply for an urban family of four. The menus, with suggestions for preparation, follow.

FIRST DAY

Breakfast	Lunch or Supper	Dinner
* Orange juice	* Creamed chicken	* Pan-broiled steak
Scrambled eggs	Fruit salad	* Potato patties
Bread	Crackers	* Peas Bèchamel
Butter (margarine)	Butter (margarine)	Bread
Jelly	Milk	Butter (margarine)
Coffee		* Berry pie
Cream and sugar		Tea
Milk		Lemon and sugar
		Milk

The starred items were frozen. Cooking was done with liquid fuel and a food warmer. Washing utensils was eliminated by lining frying pan and saucepan with aluminum foil.

SECOND DAY

Breakfast	Lunch or Supper	Dinner
Apricot nectar	Chicken soup (diluted with celery juice and water)	Pork stew (pork and gravy, potato, carrot)
Dry cereal	Peanut butter sandwiches (date-nut bread)	Pickled beets
Sugar and evaporated milk	Citrus sections	Pumpernickel bread
Brown bread	Cookies	Butter (margarine)
Butter (margarine)	Tea	Hard candy
Jelly	Lemon juice and sugar	Tea
Coffee	Milk (evaporated)	Lemon juice and sugar
Sugar and powdered cream		Orange milk (dried milk in orange juice)
Prune milk (evaporated milk and prune juice)		

A foil-lined chafing dish was used for heating foods. A food warmer may be used, heating foods in discardable three-pound shortening cans.

THIRD DAY

Breakfast	Lunch or Supper	Dinner
Pineapple juice	Macaroni and cheese (hard-cooked egg added)	Roast beef
Breakfast sausage	Tomato aspic	Hominy
Rye bread	Melba toast	Green beans
Jelly	Peaches	Relish
Coffee	Cookies	Brown bread
Sugar and powdered cream	Fruit punch	Butter (margarine)
Orange milk		Baked apple
		Tea
		Lemon juice and sugar
		Milk (evaporated)

The cooking device was a charcoal burner. A foil-lined frying pan was used for the sausage, foil-lined saucepan for the macaroni, and foods for dinner were heated in their cans.

Liquid, other than that used in the meals, included a quart each of cider, apple juice, and citrus juice, and two 10-ounce cans of water per person.

What Makes It Fun to Teach Homemaking

Lola M. Springfield
Spaulding High School
Rochester, New Hampshire

I find it such fun teaching home economics that I would like to share with others some of the things that we have enjoyed doing in our home economics department at Spaulding High.

The sophomore foods class, for example, . . . put on a cooking school demonstration "Spring Fashions in Foods," sponsored by the local gas company and presented at the Rochester Trade Fair.

. . . prepared and served a "Library Faculty Tea" in the Spaulding High School library, with the librarian displaying the new books for the school.

. . . prepared and served refreshments in our model suite dining room following a "Fashion Show" given by the freshman clothing class for the school PTA.

. . . prepared and served a luncheon to our six janitors in appreciation of their fine work in keeping our building so neat and clean. The girls also served a luncheon for 12 school principals, including our own, and a luncheon for 12 superintendents from the surrounding cities, also including our own.

. . . prepared and served a "buffet luncheon" to the boys in the "shop" at Spaulding, the girls acting as hostesses. (This event was a great success!)

Then, with a bond which we earned through the sale of our own cookbooks at 10 cents each, we bought rugs for the living room in our model suite.

The girls in the junior home care and management class redecorated our model suite, making new curtains for the bedroom, painting a cornice for the window, making a quilted bedspread with dust ruffle, and cutting out suitable pictures from magazines and framing them for the walls.

In the freshman clothing class we had a "paper hat" contest. Each of the 38 girls was assigned a partner and each couple brought to class a newspaper, pins, and scissors. Most attractive hats were made and worn by the girls during the class period. The creations were judged by the junior high home economics teacher for originality, workmanship, and becomingness.

At Christmas time each girl in the foods class packed a tin coffee can with 12 varieties of Christmas cookies which were made in class for their mothers. Prizes were given for the three girls who wrapped the most attractive and unique packages.

At Easter time, each girl in the foods class blew out the center of an egg and then painted faces and decorated the eggs. We took them down to our "Frisbie Memorial Hospital" to be placed on the patients' trays to add a bit of cheer at Easter. The dietitian was most appreciative of this gesture and wrote the class a very nice note of "thanks."

These are a few of the things that we are doing each year. They are simple, inexpensive, easily arranged activities, but they give all of us—teacher included—an opportunity to meet other groups in the community and they link up homemaking with creativeness and hospitality in the students' minds. In short, they add the fun and "sparkle" to both teaching and learning.

Comment

AHEA Offers Two Research Fellowships

The American Home Economics Association offers two fellowship awards annually to Association members for graduate study with emphasis upon research work. The awards for 1954-55 are:

1. The Effie I. Raitt Fellowship, which has a stipend of $500
2. The Omicron Nu Fellowship, which has a stipend of $1,000

General qualifications are as follows: good or superior scholastic record in all major subject matter areas and a superior average in some area of learning; successful experience as a professional home economist; desirable personal qualities which include physical stamina, emotional stability, social adjustment and tenacity; professional characteristics which include a real desire for knowledge, a sound philosophy concerning learning in general and research in particular, ability to organize materials and to express thoughts clearly in writing, and a deep interest in some human problem from which a research project may emerge.

Application blanks may be obtained from the American Home Economics Association, 1600 Twentieth Street, N.W., Washington 9, D. C. Applications should be sent to Dr. Lela O'Toole, Chairman of the AHEA Committee on Fellowship Awards, Oklahoma A and M College, Stillwater.

Applications must be received by February 1, 1954.

Nominations for the 1954 Borden Award

Nominations for the 1954 Borden Award offered by the Borden Company Foundation, Inc. are solicited by the awards committee of the American Home Economics Association. The recipient of the award is chosen on the basis of her published contributions to research in the area of nutrition and experimental foods. In selecting the candidate, investigations in human nutrition will be given preference; however, research on laboratory animals that has a direct bearing on problems of human nutrition will be considered in case no research report is found deserving the award on the basis of work on human beings. The nominees' publications during 1953 as well as their contributions during the period 1948 to 1952 will be reviewed by the committee. Any home economist in the United States or Canada is eligible for the award. Preference, however, is given to members of the American Home Economics Association.

Nominations may be submitted to the awards committee by any member of the American Home Economics Association. Each nomination must be accompanied by a list of the candidate's publications during the current and five previous years.

All nominations for the award must be received before February 1, 1954. Forms will be supplied by the chairman for recording publications. Any information concerning the nominee which would help the committee in its selection should accompany the nomination.

The award will be presented at the annual meeting of the AHEA next July in San Francisco.

Send nominations to Dr. Vivian Roberts, School of Home Economics, Ohio University, Athens.

U.S. Department of Agriculture Reorganization Proposals Announced

As this issue of the JOURNAL went to press Ezra Taft Benson, Secretary of Agriculture, announced a proposed reorganization of the Department.

The proposal places all service agencies of the Department under four main groups: *Federal-States Relations; Marketing and Foreign Agriculture; Stabilization;* and *Agricultural Credit.*

"This reorganization streamlines the Department for better service to farm families and for simplified internal organization," Secretary Benson said. He announced that the proposals have been made after consultation with Congressional agricultural leaders and many other groups and asked that comments or suggestions from the public be sent to him by November 1, 1953.

Details of the proposals and what if any new meanings they will have for the Bureau of Human Nutrition and Home Economics were not available at JOURNAL press time. However, since the general announcement of the proposals did not mention the Bureau of Human Nutrition and Home Economics by name, AHEA President Elizabeth Sweeney Herbert wrote to Secretary Benson, asking that the Bureau's identity be maintained and a strong program of research be continued.

The JOURNAL hopes that details of the reorganization plan will be released in Washington in time for the December issue.

AHEA Activities

Report of Conference on Teaching Home Management[1]

CLEO FITZSIMMONS

Dr. Fitzsimmons is head of the department of home management in the School of Home Economics at Purdue University and chairman of the AHEA's family economics–home management division.

The "Conference on Teaching Home Management" held at Purdue University, June 7 to 9, with the co-operation of the AHEA family economics–home management division, was one of a series of conferences through which the development of the field of family economics and home management has been promoted during the last eight or ten years. It was planned following recommendations made at a "Conference on Research Problems in Family Economics and Home Management" held at Columbus, Ohio, in 1952. In general, the purposes of the Purdue Conference were to:

1. Delineate the content of home management
2. Consider aspects of subject matter that might be taught at different levels of student age and interest, including elementary and secondary schools, Extension Service, and college and universities
3. Exchange ideas on desirable teaching methods
4. Make note of similar problems of teachers at different levels of student interest
5. Decide where emphasis should be placed for continued advancement in the field
6. Make suggestions as to needs to be considered in conferences or workshops to follow

Represented at the conference were Illinois, Indiana, Iowa, Kansas, Montana, New York, North Carolina, Ohio, Utah, and Wisconsin. A total of 51 working members of the conference included high school teachers, workers in home economics extension from counties and state staffs, research workers in family economics and home management, and college and university teachers.

The conference plan was to encourage discussion in small groups, divided on the basis of professional interest, following presentations on the topics "The Problem," "The Relationship of Family Economics and Home Management," "The Content of Home Management," "The Place of Research in Teaching Home Management," and "Effective Methods in Teaching Home Management."

Problems in teaching home management were seen to be: (1) understanding the meaning of home management (This problem is increased by the tendency to use home management as a "dumping ground" for subjects that do not seem to belong elsewhere; emphasis on "the one best way" without sufficiently relating process to human goals and values; and the intangibility of management which, as it is carried out, can be different in interpretation for different people.); (2) fitting our approach to the students we teach (This is important because of recognizable differences in student interests.); (3) enlarging research in the areas of home management and family economics to establish principles which underlie our teaching.

The place and function of home management in the home economics curriculum were seen to be that of relating the content of physical and social sciences and the humanities to the problems of family living. Home management was suggested to be an encompassing influence which bound all together in a plan for living.

The discussion group of extension workers defined family economics as "a body of knowledge of resources for production, consumption, and distribution which families use in living." In the opinion of this group, home management puts this knowledge to work. It must be adjusted to new resources and be related to the interests of students. Above all should be stressed the importance of home management for serving these interests. If people *want* to learn to manage, a long step has been taken in teaching principles and processes of management.

The conference group recognized that the definition of home management, developed in the 30's and since that time used with some variation, probably should be re-examined as our ideas about what home management is, continue to develop. The processes of making choices are an important part of home management. Some of the basic, easily recognized choices are:

1. Choices of goals or ends to be sought . . . standards to be accepted . . . continuous choice as goals are changed
2. Choices of resources to be used . . . and *which* combination from the many that are possible
3. Choices of methods to be employed in using resources . . . correct methods of care as well as of use . . . the division of work among the persons concerned
4. Choices in the order of working or of seeking various ends since these may be reached (or obtained) by long, intermediate, or short-time effort . . . how to recognize achievement and evaluate it

From family economics we may learn something

[1] Reprints are available from the AHEA at ten cents each.

about such matters as: what influences goals; the definition and general use of resources; and the degree of excellence that is possible, desirable, and economically feasible as the outcome of effort and the use of other resources. We need to seek greater awareness of family economics as a body of subject matter, different from economics and from home management. It is not correct to use consumer economics and family economics as synonyms for *economics*. (They are not even synonyms.)

Presented also was a list of assumptions upon which ideas taught in home management are based. The assumptions arise from the science of economics. They include:

1. Resources are scarce. There are not enough of them for every person to have every thing he wants. Therefore, choices must be made.
2. Wants can be ranked in the order of their importance to individuals or groups, and resources for obtaining them can be chosen from all resources in the control of the individuals or groups.
3. If each of us has an opportunity to do the work he does best or the work he does better than anyone else can do it, more wants can be satisfied than is possible if we work at tasks we cannot do very well.
4. Economy results when the greatest total of satisfactions are obtained with the least possible expenditure of resources.
5. In deciding how to use resources to get what we want, the combination should be selected which results in the greatest total of pleasure (or satisfaction) and economy.
6. Each individual or group is the final judge of which satisfactions are most desired by him or by its members.
7. No person would knowingly use his resources to obtain satisfactions that, relatively, are unimportant for him, if it is possible for him to use them to obtain important ones.

Ruth Schooler, city supervisor of home economics education, Gary, Indiana, in her talk on "Effective Methods of Teaching Home Management," [1] gave examples of methods which had been used and said,

In addition to practical buying knowledge, such as that offered in foods and clothing classes, other areas of management we consider are:

1. Planning and doing the housekeeping at school and at home
2. Planning and spending the school homemaking budget
3. Recognizing such assets as: co-operation, ability to make decisions and to abide by them, tolerance
4. Developing skills and abilities in homemaking tasks
5. Developing increased knowledge for using time, energy, money, and materials wisely

The conference summarizing committee, made up of Helen McCullough of the University of Illinois, Marie Nagovsky of Purdue University, and Christine Newark of Ohio State University, gave the high lights of the conference as follows:

As a whole, we accept the concept of home management as a decision-making process for using family resources to attain family goals. It involves interaction among individuals, families, and communities. Economics is one relationship with which home management is concerned. There is a similar relationship with other sciences.

While we accept the definition of home management as a process, we recognize that home management is also a subject-matter area, not completely defined by this conference. For example, home management as a subject-matter area includes general principles of management, pulls together into a whole management from all areas, such as family money management, defining goals, work simplification, and allocation of time of family members for attaining goals.

We recognize the need for accurate and adequate information provided by research for teaching home management at all levels of student ability and interest. Research is much needed in all phases of home management and family economics.

We need to motivate people to manage their resource use consciously toward recognized goals. We need to recognize variation in goals, to stress their evaluation and evaluation of resource use. As goals vary, there is need for flexibility in control and use of resources.

Home management goes on all the time. Improving managerial ability is a continuing, developing process. Management needs to be taught in all home economics courses. In addition, courses in management are needed to pull together and integrate basic principles. We begin with "management" for young pupils, applying it mainly to personal concerns. As students mature, we apply management teaching to "home management."

The following needs for future action for improving home management teaching were recognized by the conference: (1) to further clarify terms we use in management to facilitate communication among ourselves and with persons in other disciplines; (2) to improve methods of teaching (We need more effective tools, devices, and techniques.); (3) to work together more in (a) exploring further and defining concepts of management and its implications, (b) integrating and using research findings, (c) sharing successful methods of teaching at all levels of student ability and interest; (4) to work more with groups outside our specific subject-matter area.

The conference recommends that the following activities be suggested in the business meeting of the family economics—home management division in Kansas City as a part of the division's plan for action: (1) that the division appoint a committee on teaching, comparable to its committee on research, and that this committee work toward another conference on teaching in 1954-55; (2) that conferences or workshops on research and on teaching be held in alternate years with research conferences emphasized during 1953-54.[2]

The conference recognizes that regional meetings, made up of states which have a logical grouping, will probably be more satisfactory for obtaining good representation from elementary and secondary schools, extension, and college and university staffs, for the teaching meetings, than gatherings of people from only one state could be.

[1] A full-length article incorporating the practical teaching suggestions given by Miss Schooler is to be included in the present JOURNAL series of articles written particularly for high school teachers.

[2] These recommendations were made and accepted.

Abstracts

Education (Elementary, Secondary, and Adult)

Contributed by LILA M. CANAVAN
University of Utah

Some earmarks of ineffective and of good teaching, C. BRODSKY. *School Review* **61,** No. 4 (April 1953), pp. 237-241.

The changing nature of the secondary school population in the past 10 to 25 years has raised a problem to which too many teachers have not found an answer. Attitudes toward culture and learning which are associated with middle-class standards are often absent. Although more children go to college today, so great has been the influx into secondary schools from working-class homes that it is an unusual school where students preparing for college equal more than a very small per cent of those who have no such intention. The schools are approaching the admirable goal of reaching "all the children of all the people," but many educators are still at a loss as to how to teach them.

The successful teacher seldom feels completely successful, but he does not stop trying. He studies his methods and searches for different methods in order to give variety. He does not overlook the real capacities of most of his students. He recognizes that pupils from all areas have educational needs that can and must be satisfied. The successful teacher never makes his students feel inferior and realizes that his professional and personal success can be measured by how well he draws out the best that his students have to offer.

Teachers' educational beliefs versus their classroom practices, W. A. OLIVER. *J. Educ. Research* **47,** No. 1 (Sept. 1953), pp. 45-55.

This article is based upon a study in six elementary schools in a large American city of the stated educational beliefs of 119 elementary teachers as contrasted with their classroom practices. This study was geared to four principles of learning: (1) Good teaching recognizes and provides for individual differences among children. (2) Human growth or development is a continuous process. (3) Real learning is based upon experience. (4) Learning proceeds best when related to the interest or experiences of the learner.

To determine the extent to which these teachers accepted the four principles, a 50-item check list of educational beliefs was prepared. These statements were aimed at determining the extent to which the teachers agreed or disagreed with the concepts embodied in the statements.

The second phase of the study was concerned with the evaluation of the practices as reflected in their classrooms. The conclusions from this study were: (1) The problem of educational lag is a serious one in education. (2) Teachers have little real understanding of the basic principles of child growth and development. (3) They have not been given the necessary techniques to develop classroom programs based on child needs, interests, or capacities. (4) Actual provision for individual differences is very limited. (5) Learning experiences are limited to assignment-recitation type of activity. (6) In-service training programs need to be stepped up and more emphasis placed on child development and democratic approaches to learning. (7) Changes need to be made in the curricula to insure better understanding of modern methods of instruction.

Extensive-intensive student teaching: Which is most effective? T. B. BOTNER. *Education* **73,** No. 10 (June 1953), pp. 612-617.

The length of the daily teaching assignment has greatly increased over the past few years. In the past the typical student teaching assignment was for one hour per day. A more recent trend is toward increased time for student teaching.

Is there evidence that an intensive program is better than an extensive one? This article reports the results of a study of student teaching in Kentucky, made by the writer in 1950, which analyzed the relationship of the length of the daily assignment to student teaching, to the degree certain teaching experiences were provided student teachers.

While this study indicates that more adequate teaching experiences were provided by those supervising teachers who had the student teachers for the longer daily assignments, it also emphasizes that "more time" alone will not guarantee effective student teaching experiences. Longer daily assignments, especially full-time teaching, offer the greatest possibilities for the student teacher to have the total experiences of the teacher in service.

Supervising teachers, like any other teacher, must be trained for the job.

Family Economics–Home Management

Contributed by GERALDINE GAGE
Kansas State College

Americans never had it so good. *U.S. News & World Rept.* **35** (July 3, 1953), pp. 76-78.

The writer cites evidence that American families are currently better off than they have ever been. Now as never before, he says, ordinary families in large numbers have the opportunity to build estates. Previously this was limited to a small group of upper income bracket families.

Wages are high, as are holdings in government bonds; life insurance holdings have reached an all-time high; three out of four families now own some kind of insurance protection; individual savings are approaching record high levels. Private pensions are becoming more popular and add to the protection afforded by social security.

The value of nonliquid assets is high also; in 1953, 53 per cent of all dwelling units were occupied by owners.

There has in general been an increase in family income. Where 4 per cent of families in 1946 had incomes of $7500 or more, 9 per cent now have. Where 10 per cent of families had incomes of $5,000 or more in 1946, 25 per cent have in 1953. In addition to an increase in income, there has been an increase in "discretionary income," that income over which some choice of use may be exercised. Farm families have made the largest gains with nearly a 69 per cent increase since 1946. Those groups with highest incomes in 1946 made the least gains (33 to 35 per cent).

About 50 per cent of families have some short-term debt exclusive of charge accounts and home repairs. Only about 1 out of 4 of these amounts to 20 per cent or more of the annual income.

According to the National Industrial Conference Board, families with incomes under $3,000 have a net worth of $6900. For all families, the average estimated net worth is $13,900.

Buy a house—or rent? *Changing Times* **7** (April 1953), pp. 7-11.

Home ownership seems to be characteristic of the American way of life. Renting has become less common as prosperity has permitted savings and purchase of homes. Changes in home financing loans have aided. Now over 53 per cent of families live in homes they own. Psychologically, ownership spells success, achievement, prestige, security.

The case for renting rather than owning a home is summarized as follows:

1. Owning a home decreases family mobility, may make it difficult to move to take advantage of opportunities elsewhere.
2. Although present financing measures make buying a home relatively easy, costs of maintenance must be met and these increase as a home ages.
3. Changes in real estate values or neglect of repair may depreciate value of investment.
4. Renting permits changing homes to suit the family housing needs, all of which cannot be anticipated in advance.
5. Renting suits needs of young couples who have not settled in a job as yet and whose future is uncertain and of older people who cannot carry the financial burden and do not wish responsibility of care of a house.
6. The financial burden of buying a home at advanced age might put considerable strain on a declining income.

Is the U. S. depression proof? *U.S. News & World Rept.* **35** (July 3, 1953), pp. 20-21.

Because of the availability of certain "anti-depression weapons" not available in 1929, the writer of the article does not foresee a reoccurrence of a depression like that of 1929. The following are the devices he listed that would tend to make such a depression unlikely:

1. The Federal Reserve Bank. Through its system the government can "help" credit and can regulate its availability in times of need. Government credit is much more readily obtainable now through the Reconstruction Finance Corporation.
2. Crop price supports.
3. Safer banks. Government-insured deposits make crippling runs on banks not likely to occur.
4. Long-term amortized mortgages. Government-insured loans would forestall the kind of foreclosures seen in the 1929 depression. Because of reduced risk, lenders are less likely to foreclose.
5. Unemployment compensation. The system of unemployment compensation has been greatly expanded and developed to a degree unheard of in 1929. It would serve as a means of tiding workers over a period of unemployment without their becoming totally destitute.
6. Minimum wages. Like crop price supports, these would curtail a drastic downward spiral.

Family Relations and Child Development

Contributed by RUTH J. DALES
Florida State University

Toward better speech and hearing, R. M. FOOTE, MD, and S. STECHER. *The Child* **17,** No. 10 (June-July 1953), pp. 154-157.

Testing the children of Tennessee to discover hearing and speech defects is part of an over-all state-wide program to find, treat, and rehabilitate children and adults handicapped by defects of speech and hearing. This movement was initiated by the medical profession. It has now led to the organization of the Tennessee Hearing and Speech Foundation, a co-operative nonprofit enterprise supported by more than 40 public and private agencies and organizations.

The over-all program consists of finding the children with speech and hearing defects; providing whatever services, clinical or otherwise, are necessary; and, finally, educating the children with hearing and speech defects.

Finding the children is the first important step. Three methods were tried to determine the most effective one. They were: (1) a complete survey by trained specialists, (2) referrals by teachers who detected speech or hearing defects, (3) similar referrals by teachers with the aid of a "symptom sheet." The complete survey method was found best. The yearly procedure agreed upon as a result of trying the three methods involves using trained specialists to test the hearing of every child in the second, fourth, and sixth grades. In this way every child will be tested every other year. For speech testing, the second grade was selected. Children in other grades are also tested for speech when referred by the teacher. According to previous findings, more significant hearing problems occur in children in the second, fourth, and sixth grades. It has been found that a good daily average for two consultants, counting screening and retesting, is about 200 children.

Specialists work through the local public health department and the department of education. Retests are given the most urgent problem cases and referrals are made to physicians. Referrals are marked with a first, second, or third priority with the public health nurse visiting the parents as a follow-up. If the family cannot pay for the medical service, the public health nurse completes an application for such service, which is sent to the regional office of the Crippled Children's Service. If after medical examination a series of treatments is recommended, the Crippled Children's Service pays for these. These services are open to all, regardless of race, creed, color, or age.

The aim of this program is to reach every child in the state who has a defect in either his speech or his hearing so that no Tennessee child will be hampered by this type of defect in obtaining an education leading to eventual self-support and responsible citizenship.

Relation of parents, home and certain developmental characteristics to children's reading ability: Part II, W. D. SHELDON and W. C. CUTTS. *Elementary School J.* **53,** No. 9 (May 1953), pp. 517-521.

In an earlier study Sheldon and Carrillo found certain factors to be somewhat related to a child's reading ability, such as: size of family, position in the family, number of books in the home, educational level of parents, and like or dislike of school by the child. The present study compared the reading status of pupils with ten types of items obtained through a parent questionnaire.

No significant trends were discernible in regard to extracurricular activities, except that the superior readers seem to like these activities slightly better than do the other groups. It was suggested that superior readers have more time to participate in these activities. In studying methods of parental control this area appeared to be inconclusive despite minor trends. In regard to interests and hobbies, it was found that the above-average and superior readers have reading as a hobby as well as interest in science, interest in sports, interest in social activities.

Comparison of certain factors such as physical development, verbal communication, and frequency of nightmares showed no correlation. The study indicated that superior readers had a greater per cent of visual defects. Over 90 per cent of these defects found in superior readers had been corrected, while only 76 per cent of the visual defects among average readers were corrected.

It was also found that almost three times more superior readers than poor readers were expected by their parents to attend college. Leadership status was studied, and it was found that superior readers and above-average readers held more positions than poor readers. In the study of motor co-ordination, no significant trend was indicated. The study is being continued on other developmental characteristics.

Foods

Contributed by MARGARET MANGEL
University of Missouri

Elimination of *Salmonella* in whole egg powder by cathode ray irradiation of egg magma prior to drying, B. E. PROCTOR, R. P. JOSLIN, J. T. R. NICKERSON, and E. E. LOCKHART. *Food Tech.* **7,** No. 7 (July 1953), pp. 291-296.

Dried egg powders frequently contain viable *Salmonella* which multiply rapidly on reconstitution of the egg. Such contaminated egg powders are a potential source of food poisoning. Pasteurization of the egg magma prior to drying can destroy the microorganisms; but, since egg proteins are heat sensitive, minimum pasteurization times are often used and under these conditions resistant strains of *Salmonella* survive.

Cathode rays have been used effectively in cold sterilization of a number of foods. Results of an experiment conducted to determine feasibility of this treatment of eggs before drying indicated that a cathode ray dose of 300,000 rep (roentgen equivalent physical) would assure destruction of *Salmonella* in heavily contaminated whole egg magma. The effectiveness of the treatment was not lowered by the current practice of acidification before drying. An off flavor was detected when scrambled eggs were prepared directly from the irradiated egg magma. After drying, however, no preference was shown for the nonirradiated eggs. The cathode ray treatment of the eggs did not affect the volume or texture of sponge cakes, and the flavor and odor of the cakes made with irradiated eggs were not less desirable.

The growing role of phosphates—they offer more than enrichment, R. A. BARACKMAN and R. N. BELL. *Food Eng.* **24,** No. 6 (June 1953), pp. 68-70, 108.

This article summarizes the contribution of phosphoric acid and its salts to nutritional values and eating and keeping quality of foods. The less well known uses of the phosphates include: buffering of cereal products with disodium phosphate to hasten swelling and shorten the cooking time; lowering of heat sensitivity of evaporated milk during processing by addition of disodium phosphate; reduction of shrinkage and flavor and color losses in hams by disodium phosphate; imparting of flavor to soft drinks and production of right acidity for imitation jellies by use of phosphoric acid; improvement of yeast breads by use of calcium and ammonium phosphates; increasing the yield of juices from pectinous fruits and vegetables by sodium phosphate; firming of fruits and vegetables by any of several phosphates; and prevention of stickiness in products held in moist atmosphere. The rates of reaction of the various phosphates available for chemical leavening are graphed. Factors determining choice of phosphates for use in packaged mixes and the extent to which properties of the phosphates can be controlled in manufacturing are discussed.

New enzymes "open new doors," E. G. SNYDER. *Food Eng.* **24,** No. 6 (June 1953), pp. 89-90, 92.

Glucose oxidase, an enzyme prepared commercially from special strains of fungi, is being used in the egg drying industry to "desugar" both egg white and other egg solids products. The enzyme removes glucose by converting it to gluconic acid in presence of oxygen. Egg solids from which this sugar has been removed are stable on storage and do not turn brown. The desugared whites are well suited for use in prepared cake mixes. It is believed that glucose oxidase will prove useful in removing sugar or excess oxygen in a number of foods. Other new uses for enzymes noted include: catalase removal of hydrogen peroxide from milk after the bacterial count has been reduced by the action of peroxide preliminary to cheese making; and peroxide and catalase bleaching.

Improving the nutritive value of cereal grains: I. Improvement in the efficiency of the proteins in milled wheat flour with lysine, valine, threonine and an extract from condensed fish solubles, B. SURE. *J. Nutrition* **50,** No. 2 (June 1953), pp. 235-244.

Young albino rats of both sexes were fed milled wheat flour diets with added dried egg, dried milk, or one or more of the supplements lysine, valine, threonine, or an extract of fish solubles, at a level to provide 9 to 10 per cent protein in the diet. It was possible to increase the gain in body weight per gram of protein intake by supplementation of the flour diet by increasing the protein efficiency ratio from 0.68 to 3.11. The use of all four test supplements produced a ration comparable to one containing nonfat milk or egg solids. Lysine and threonine appeared to have a particularly significant role in economy of food utilization. If the cost of commercial amino acids is reduced sufficiently and they become available in quantity, they may possibly be used to supplement cereal foods.

Housing and Household Equipment

Contributed by HELEN MARLEY
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Flexible smooth surface floor coverings, R. HUTCHESON. *Mimeo. H.E. 115,* Agr. Exten. Serv., Purdue University (Jan. 1953), 12 pp.

Recommended uses for a resilient floor covering are based upon the characteristics of the particular material. On the basis of available information, the flexible floor coverings are ranked on durability, chemical resistance, comfort value, appearance, and ease of installation.

In the work area, a floor covering should have resistance to household chemicals, high durability, good appearance, and be comfortable to stand on. Linoleum and vinyl coverings meet these requirements. For the living area, comfort, color harmony, durability, and ease of maintenance requirements are met by cork, vinyl, and rubber materials. In the sleep and rest area, comfort and appearance values may be had: at low cost with asphalt tile; at medium cost with linoleum or vinyl sheeting; or at high cost with rubber or cork.–N.W.

Damaged goods, L. WRAY. *Elec. Merchandizing* **85,** No. 4 (April 1953), p. 268.

The postwar years saw a high percentage of damage to products in transit, including smashed crates, crushed cartons, chipped enamel, scratched paint, and broken or missing parts. Damage exacted a toll of millions of dollars annually.

The "safe transit" plan has been the aspirin for the headaches of the groups hurt by damaged goods. The Pre-Shipment Testing Plan devised by the National Safe Transit Committee under the sponsorship of the Porcelain Enamel Institute has won the support of manufacturers, carriers, packaging and shipping groups, and distributors in the past four years. In order to be certified and carry the orange "Safe Transit" label, the packaged product must pass rigid tests to determine its ability to withstand shock.–N.W.

How to protect slab floors from frost and dampness. *Am. Builder* **75,** No. 3 (May 1953), pp. 74-77.

Concrete floors on grade provide an excellent base when properly designed and built. A foundation wall deep enough to get below the prevailing frost line must be placed around the perimeter of the house. A good grade moisture membrane must be placed under the slab.

Recently study and research have been carried on by universities and associations to develop simplified construction methods. Some methods now being studied are: (1) placing the grade beam around the perimeter of the house integral with the slab without the use of supporting beams or posts; (2) using floating slabs of varying thicknesses without posts or foundations (applicable mainly in the Southwest); (3) eliminating waterproofing under the slab to reduce the time lag.

William Egger, reporting on research already completed, concluded that: shallow foundations were entirely satisfactory under the conditions tested; the foundation and floor should be monolithic to eliminate differential movement; gravel or clean sand should be used beneath the floor slab to a depth of the bottom of the footing so that both floor and foundation will be subject to the same amount of frost action; and a shallow foundation should not be put on a silt or silty sand soil. –H.M.

Slum towns are going, E. B. LOCKETT. *Nation's Bus.* **30,** No. 5 (May 1953), pp. 52-56.

For the first time in American history it appears that slums may disappear from United States cities. Since World War II a movement has been under way to rehabilitate and repair usable blighted area housing and to demolish only where repairs cannot restore decent living standards.

Boston has established a "Fight Blight Fund" to aid families who cannot afford to make all necessary repairs required by the slum rehabilitation program. Families are encouraged to make their own repairs as far as possible. Charlotte, North Carolina, has rehabilitated 8,800 blight area dwellings. Pasadena, California, has corrected 800 houses with its "Operation Junk-yard." More than 20 cities have reported real progress, while 131 cities in 36 states are actively promoting rehabilitation programs.

Repairs and rehabilitation do not eliminate overcrowding, but they help buildings meet health standards. Such a program substitutes action for righteous indignation. The program does not cost owners much money and the taxpayer's burden is negligible.

In the last analysis, the best way to save American cities from slums is to prevent them.–H.M.

Institution Administration

Contributed by BEATRICE DONALDSON
University of Wisconsin

Satisfy your customers and sell your food, J. A. CLINE. *Am. Restaurant Mag.* **37,** No. 8 (Aug. 1953), pp. 52-53 +.

Although satisfaction of the customer in a restaurant may depend upon a combination of atmosphere, satisfactory price of the food, good service, cleanliness, and good food, customers do expect, above all, palatable food which is attractively served. Better supervision by home economists trained in food production and methods of teaching as well as on-the-job training of cooks can help to control cookery and prevent the usual errors in quantity food preparation. The use of standardized recipes will provide not only good food but promote portion control and food cost control. Modern methods of cookery which have been standardized through research will eliminate shrinkage and loss of food nutrients. Low temperatures for cooking meats are essential for quality and optimum portion yield.

Proper tools for the accurate measuring and weighing of ingredients are essential for quality food. The supervisor, however, needs to teach employees how to use such tools correctly. Precision instruments for the control of cooking temperatures such as thermometers, thermostats, and timers are also important in food preparation for institutions. In addition to improving the quality of the food, considerable time can be saved through the use of the many new food products such as prepared mixes, prefabricated meats, and ready-to-cook poultry and fish. Any restaurant can serve excellent food and make a good profit after simplifying the menu by reducing the number of items offered and by providing close supervision, teaching more efficient methods of cooking, and using proper equipment and standardized recipes and methods.

Supervisory training, W. C. CHRISTENSEN. *J. Am. Dietetic Assoc.* **29,** No. 6 (June 1953), pp. 569-572.

The five major areas in which responsibilities and skills are required of a supervisor are technical knowledge, methods, management, training, and leadership. There seems to be general agreement in business and industry that skills in training and leadership are two of the most important in supervising workers. These usually are emphasized in any well organized supervisory training course. They can help to reduce operating costs and improve efficiency and human relations. They can help reduce complaints, establish a basis for promotion, and reduce labor turnover. Through training the policies and procedures of the organization can be improved. The success of a supervisor is based on what he or she is able to accomplish through people. Training she accomplishes can result in closer co-operation among all levels of management.

Three tools for supervisors which have been given successfully to them for several years in industry are job instruction, job relations, and corrective interviews. Job instruction outlines how to instruct and how to get ready to instruct. Job relations provides suggestions for good human relations and how to handle employee problems. The corrective interview provides an outline for an interview with an employee.

Methods analysis, J. R. FRAZER. *J. Am. Dietetic Assoc.* **29,** No. 8 (Aug. 1953), pp. 786-788.

One of the newer tools for methods analysis is method-time measurement. It is commonly referred to as M.T.M. This is a procedure which analyzes any normal operation into the basic motions required to perform a job and assigns to each motion a predetermined time value. In order to develop the basic data for method-time measurement, engineers classified all hand and arm motions into eight basic elements subdivided according to the conditions under which they are made. These basic elements were reach, move, grasp, turn, position, release, disengage, and apply pressure.

This article includes a detailed M.T.M. (method-time measurement) analysis of two methods of ladling soup in a cafeteria line. This analysis describes each method and measures how much better one is than the other. It also provides a time standard for doing the job which can be valuable in training workers.

Methods analysis has many phases, and its scope should be determined by the costs involved and the possible savings which may result through its use. Methods of reducing costs of foods served should be among the first phases analyzed. Food quantities should be standardized, and methods by which ingredients are added during food preparation should be studied. Methods analysis can also include a study of the design of equipment, the layout of work areas, and the organization, planning, and scheduling of work.

Social Welfare and Public Health

Contributed by LUISE K. ADDISS, ELEANORE T. LURRY, BEATRICE W. NAHEMOW, and JESSIE PERKINS
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Family life education: its focus and techniques, G. K. POLLAK. *Soc. Casework* **34,** No. 5 (May 1953), pp. 198-204.

The family life education program of Family Service of Philadelphia is described as "a process by which people are helped, through group discussion, to broaden their understanding of family relationships." The emphasis is on the normal and positive in family relationships; the goal is to develop sound and generally accepted concepts of attitudes and behavior which members can apply in their own life situations.

Clarification at intake indicates whether a request for a discussion group leader should be handled by a caseworker or other professional person, as psychiatrist or home economist. Fees are charged, geared to capacity to pay. Tools and procedures have been developed to carry out and evaluate the program.–L.K.A.

Essentials of public welfare—a statement of principles, WELFARE POLICY COMMITTEE, APWA. *Public Welfare* **2,** No. 1 (Jan. 1953), pp. 3-6.

This is a comprehensive statement of the basic philosophy underlying public welfare programs today: "Public Welfare is that area of governmental service which protects individuals and families against potential or actual social disaster, including economic want, and helps them find the means to regain economic and social self-sufficiency."

By serving the interests of all in the community and working together with voluntary welfare services, public welfare strengthens the democratic principle of the worth of the individual. As a service program, it involves the use of skilled workers with an awareness of human needs and a knowledge of available programs and resources to help meet these needs. The services rendered cover a wide range beyond purely economic protection.

The principles of public welfare cannot remain static. They will change as the role of government in society changes. Mutual aid is one of the fundamental considerations of public welfare and, while the rights of the individual are recognized, persons receiving such services also have an obligation to be honest with the agency, make every effort to find the solution to their individual problems, and to recognize the limitations, under law, of a public program.–B.W.N.

Helping older persons remain in the community, D. V. PRUSSIN. *Public Welfare* **2,** No. 3 (July 1953), pp. 103-105.

The development of a boarding home program in the New York City Department of Welfare has proved to be a satisfying and productive plan for improved service for aging clients. Boarding home placements are arranged for clients who do not want institutional care or who need an interim plan while on waiting lists of homes for the aged.

Approximately 1800 aged recipients of public assistance are able to live in homes located, inspected, and approved by a trained staff. Consultants of the housing and home economics programs review each inspection report in relation to the adequacy of housing facilities and nutritious meals. There are 665 approved homes now under agency supervision which provide clients with opportunities for congenial living.–E.T.L.

How old-age and survivors insurance beneficiaries get along, E. C. WENTWORTH. *Public Welfare* **2,** No. 2 (April 1953), pp. 39-42.

Only two out of every five of the aged receiving insurance benefits are able to maintain themselves independently at or above the level of public assistance recipients. The others are probably dependent on relatives or public or private agencies. For survey purposes, persons were included in the partial dependency group if they received public assistance, free hospital care, or at least $100 annually from children or others outside the home, or if they lived with others but did not fully share expenses.

Some, apparently independent, were below the public assistance level; some were unaware of assistance programs; others indicated they would refuse "charity." Many could not adjust to any kind of assistance. Of those partially dependent on others, the largest group was the aged widows. Few of those fully independent could remain so for the rest of their lives unless they had some other retirement income plan. Liquid assets often are wiped out quickly by illness.

For many, the social security program makes the difference between independence and dependence.–J.P.

Textiles and Clothing

Contributed by GEITEL WINAKOR
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Fungicides in textiles as sales-promotion tools, C. C. YEAGER. *Am. Dyestuff Reptr.* **42,** No. 18 (Aug. 31, 1953), pp. 591-594.

During World War II various fungicides were tried in the attempt to preserve fabrics to be used in the tropical Pacific area. Many of the fungicides were either ineffective or had some serious disadvantages. The search for better fungicides continues because of the need for fungi-resistant fabrics in many nonmilitary products.

A good textile fungicide may either kill fungi spores or simply prevent their growth. It should be stable to heat, light, and chemicals which might come into contact with the fabric. It should be nontoxic, odorless, and should not significantly alter the color, hand, or tensile strength of the fabric. Few fungicides have all these qualities. However, it is expected that demand for treated goods will grow as better treatments become known.

The main advantages of fungi-resistant textiles are longer life and better wear, elimination of mildew stains, better sanitation, and freedom from odors.

Chemical and physical properties of aminized cotton, W. A. REEVES, O. J. MCMILLAN, JR., and J. D. GUTHRIE. *Textile Research J.* **23,** No. 8 (Aug. 1953), pp. 527-532.

The substitution of amino groups in the cellulose of cotton yarns and fabrics is now possible on a commercial basis. Analysis of aminized cotton produced on a pilot-plant scale shows that its properties are different in many respects from those of untreated cotton. The degree of aminization must be carefully controlled because highly aminized cellulose is water soluble, while some of the unique properties of aminized cotton depend upon the number of amino groups available.

Aminized cotton dyes rapidly with most cotton dyes, and some of the dyes are more fast to washing and sunlight on aminized cotton than on untreated cotton. The treated cotton takes up many acid dyes much as wool does, but on cotton the dyes are less fast to washing. Aminized cotton may be made durably water-repellent and permanently flame-resistant. Stable metal complexes which can be made with aminized cotton are resistant to rot.

Aminized cotton is slightly stiffer than untreated cotton and soils more easily. Its tensile strength is similar to untreated cotton, but aminized cotton is more resistant to abrasion.

Seamless nylon shipments continue to rise. *Women's Wear Daily* **87,** No. 48 (Sept. 4, 1953), p. 16.

Statistics prepared by the National Association of Hosiery Manufacturers showed that women's seamless nylon hosiery accounts for a substantially larger share of stocking shipments in the first seven months of 1953 than in the corresponding period of 1952. From January through July 1953, total sales of nylon hosiery were nearly the same as in that portion of 1952. However, sales of seamless nylons increased 28.8 per cent while sales of full-fashioned nylons declined 2.6 per cent. In the first seven months of 1953, 27.6 million dozen pairs of full-fashioned nylon hose were sold, compared with 3.7 million dozen pairs of seamless nylons. In July 1953, 40.3 per cent more seamless nylons were sold than in July 1952.

Total hosiery exports declined 15.7 per cent for the first seven months of 1953, reflecting general economic trends and increased manufacture abroad.

All price brackets found vulnerable to style piracy, G. FOWLER. *Women's Wear Daily* **87,** No. 54 (Sept. 15, 1953), pp. 1, 62.

The theft of fashion designs is a widespread evil in the garment industry. Usually but not always the copy is priced lower than the original. Often a style is "knocked off" many times, so that it appears very soon at all prices. Most frequent victims of piracy are designers in the high and medium price ranges.

Copying may be done by sketching services and by copyists who watch store windows and attend showings. They may buy the dress to assure duplication of the pattern. Model makers, embroidery makers, and fabric firms may sell a supposedly exclusive item to more than one garment house. A contractor may provide a sample dress to a "knock-off" specialist, or copy it himself. A buying office or buyer may have a dress reproduced by a lower priced house. Some manufacturers copy styles from fashion magazines, often boasting that a dress is a copy of a higher priced garment and even mentioning the creator's name.

Sometimes what appears to be copying occurs when designers for different firms produce similar styles, working independently from similar inspirations.

Women in the Modern World—Their Education and Their Dilemmas. By MIRRA KOMAROVSKY. Boston: Little, Brown and Company, 1953, 319 pp., $4.

The author, a homemaker and chairman of the department of sociology at Barnard College, has made a very challenging contribution to the current discussion of the education of women. Differing from Lynn White in believing that women should have a quite different education from men, she nevertheless agrees with him and George Stoddard that education in family life, marriage, and parenthood are important in women's education. She also feels such education is important for men.

She presents data from many studies of mental aptitudes of men and of women, of reactions of college graduates to their education, of employment of women, and of situations met by homemakers, college students, employed women. She analyzes dilemmas women face in our society, illustrating them with many cases of college students, homemakers, and employed women. She traces most of these dilemmas to the largely unconscious pressures to learn the feminine role, to the "crazy quilt of contradictory practices and beliefs" in our society with old attitudes persisting "in the face of a new reality which has long since rendered them meaningless," and to new goals emerging "without the social machinery required for their attainment."

She concludes that "nothing that psychologists have revealed about their capacities argues for special training" for women. She believes that there exists today a body of knowledge concerning the family that the college should make available to students but adds that "some of our most revered institutions accept responsibility for such education only grudgingly" because it "lacks academic respectability."

She is fearful of the amount of the college student's time a concentration on education for homemaking may take but sees clearly how education in family relationships and child development may "widen perspectives" and "develop capacity to see the immediate and the concrete in their broader connections." She asks that "choice among educational values be made in full awareness of alternative consequences." She believes that society as well as education must take a stand raising the prestige of the homemaker without degrading the professional woman, and "widening the range of sanctioned patterns to suit the great variety of personalities and circumstances."

The book is interesting, challenging in content, and important reading for educators and laymen concerned with the college preparation of women. —BEULAH I. COON, *Home Economics Education Branch, Office of Education.*

Crete, A Case Study of an Underdeveloped Area. By LELAND G. ALLBAUGH with the editorial assistance of GEORGE SOULE. Princeton, New Jersey: Princeton University Press, 1953, 572 pp., $7.50.

At a period when so much emphasis is being put on the improvement of conditions in the underdeveloped areas of the world, this book is a very significant and timely one. It is a report of a case study carried out by the Rockefeller Foundation on an underdeveloped area, namely Crete, a Greek island in the Mediterranean.

This fact-finding experiment was aimed at determining the types of technical assistance that would be needed to raise the standards of living of Crete. Unlike many studies which deal with one aspect of the economy or of family living, this study covers many sectors—food and nutrition, health, community facilities, agriculture, industry, commerce, resources, soil conditions, and government organization and its impact on the economy. A wealth of data is recorded by the study. Occasional gaps appear but are not serious. The report, however, provides excellent background material and should serve as an excellent basis for the planning of technical assistance and development programs. It is unfortunate that an anthropological study had not been included in the survey. It might have revealed pertinent information.

Several methods were employed to obtain information. Sample surveys using representative samples were carried out on households, farms, communities, and diets. Additional information was obtained from already available sources and by the "specialist interview" technique. A commendable feature of the report is the detailed description of the methodology used. The abundant use of charts, graphs, tables, and maps adds to the text.

Limited natural resources, scarcity of capital, low productivity of labor, and lack of management ability stand out as the major problems of Crete. Specific recommendations are given regarding ways in which the levels of living might be raised. The Rockefeller Foundation, however, does not plan

to implement these recommendations in view of the many agencies of the United Nations and the United States that are working in Greece.—ANDROMACHE SISMANIDIS, *Food and Agriculture Organization of the United Nations.*

The Uneducated. By ELI GINZBERG and DOUGLAS W. BRAY. New York: Columbia University Press, 1953, 246 pp., $4.50.

This book is a report of a study of the poorly educated in relation to their ability to make satisfying adjustments to military and civilian life. It is the first of several investigations being conducted as a part of the Conservation of Human Resources Project of Columbia University to reach completion.

The study traces the experience of a group of poorly educated men who were selected for service during World War II and were provided with an intensive training program of approximately two months designed to enable them to reach a fourth grade level of competency in reading, writing, and arithmetic prior to entering regular military training. Their military performance was evaluated in terms of carefully selected criteria and checked against a control group. Three out of four of the "uneducated" were successful in their military service, and one in three was a good or very good soldier. It was concluded that "The use of the poorly educated during World War II was a success."

It was possible to trace 42 per cent of this group into civilian life. They cited specific benefits resulting from their training. "One cannot review these materials without recognizing that the opportunity afforded these men to acquire in adulthood what most people acquire in childhood—the basic tools for communication with their fellow men—gave new and heightened meaning to their lives."

While considerable emphasis was placed upon the relation of illiteracy to military and national security, it was pointed out that the justification for national concern with the problem of the uneducated is found in every area of civilian life. The mobility of our labor force, changes in agriculture and industry, the importance of individuals in a democracy being able and willing to keep informed about complex issues, and the importance of combating Russian propaganda make the elimination of illiteracy in this country a problem for the nation as a whole. Recommendations are made for attacking the problem.

Altogether, the results of this study furnish the proponents of federal aid for education with some very important facts. In addition, it should cause thoughtful educators, especially those in Southeastern states, where the illiteracy rate is unusually high, to question practices which result in so many pupils withdrawing from school or from attending school for the length of time essential for mastering the minimal amount of skill and ability required for satisfying adjustments in adult life.—DRUZILLA KENT, *University of Tennessee.*

Evaluation in Home Economics. By CLARA BROWN ARNY. New York: Appleton-Century-Crofts, Inc., 1953, 378 pp., $4.

In the words of the author, this book "is a successor to *Evaluation and Investigation in Home Economics,* which has been so widely used by home economics educators since 1941. Material dealing with research methods and statistics has been omitted from this edition, since it is available in other places, and the author felt that the "great advances in the field of evaluation during the past decade" warranted a full exposition.

It was important that Clara Brown Arny should have written the first book focusing attention of home economists upon the special problems involved in evaluation in our field, and it is most fortunate that she should have taken the time to rewrite the book in the light of her unequalled experience in teaching, studying, and working with graduate students. New values, new devices, new procedures have been and are being constantly developed. In this book examples are presented from all areas of home economics and go far beyond the paper and pencil test in appraisal and evaluation. Clara Brown Arny has helped home economists to be specific in their definitions and has provided ways for the learner to set values on these specifics. She points up the need for accurate and appropriate evaluation, its functions, methods, characteristics desired in instruments used, and gives illustrations of many types of questions in the setting of Kilpatrick's "enterprise experience activity."

This book is not intended only for the student of home economics research but is planned for use by the classroom teachers. Used with more complete bibliographies in evaluation and research studies in home economics, it will be a valuable basic text for both undergraduate and graduate students. It is a "must" for the library of home economics educators, and there is no doubt but that it will influence home economics teaching for the years ahead.—EVELYN M. HERRINGTON, *Syracuse University.*

The Family and Its Relationships. By ERNEST R. GROVES, EDNA L. SKINNER, and SADIE J. SWENSON, in consultation with BENJAMIN R. ANDREWS. Third edition. Chicago: J. B. Lippincott Company, 1953, 566 pp., $3.80.

This book is a guide to youth in assuming their roles as family members. Directed chiefly to teenagers in senior high school and junior college, the 14-unit volume emphasizes personality development with special attention to the effect of family experiences on personal growth. In an informal, easy-to-read style, and with many action photographs, the authors direct their writing to show how security may be found in the family circle. Brief information on early American life serves to clarify the picture of present family living. A five-unit section deals with personal and family finance, marriage, domestic laws, children in the home, and family adjustments, with additional consideration given to the cultural aspects of everyday living.

Accompanying each of the 14 units are questions to serve in directing discussions, selecting home experiences, and developing concepts. A reading section, with additional references, as well as a list of films and film strips, offers opportunity for stimulating interest and activity.

Revisions of this text include the addition of a list of films and film strips, bringing up to date historical events and developments, and correcting maps, charts, and tables to conform with present-day figures. The suggested reference list is revised to include new books while retaining some earlier selections.—MARGARET SCHOLL, *Austin, Texas.*

Consumer Economics. By PEARCE C. KELLEY with the editorial assistance of HELEN CHRISTINE KELLEY. Homewood, Illinois: Richard D. Irwin, Inc., 1953, 662 pp., $6.

Written from the marketing point of view, the author designed this book primarily as a college text for consumer economics courses. It will be very usable by home economists, although a discussion of marketing organization, functions, and costs generally considered in home economics consumer education courses is not included. The book has a pleasing format, good print, is well written and well organized. Frequently, points are listed or presented in tabular form. Each chapter has a conclusion, review and discussion questions, problems and projects for student use, and a bibliography. Also helpful is a list of charts and tables which follows the table of contents.

The introductory chapters of *Consumer Economics* give basic information relating to consumers and our economy: status of consumers, role of government, and economic progress and problems. Other chapters deal with problems of and aids to the consumer, such as consumer wants and habits, family finance, marketing guides, producer aids, and government aids and protection.

Of particular interest and somewhat different are the chapters dealing with health, recreation and medical care, modern consumer buying, housing, and consumer co-operatives.

Although differing points of view have been presented on major current problems, Dr. Kelley has used a more positive approach to the consumer problem rather than emphasizing the defects commonly found. The last chapter entitled "Consumers and the Future" is very interesting and deals with 12 factors which the author feels will determine the future status of the American consumer and a discussion of some of the probable future developments in a few major fields of consumption.—LOUISE A. YOUNG, *Wisconsin Extension Service.*

Lace and Lace-Making. By MARIAN POWYS. Boston: Charles T. Branford Company, 1953, 219 pp., $7.50.

This latest book on a fascinating subject is by an internationally acknowledged authority, one who not only knows well its historical development but who is a designer and maker of lace and able to write with charm and enthusiasm on the subject with which she is so deeply imbued.

While the history of lace has been covered in many books, Miss Powys has approached it in an imaginative way. Instead of tracing the development of the different forms of laces she discusses them under such topics as ecclesiastical and bridal laces, laces used in decoration and for personal adornment, and bases much of her text on the excellent photographs of historic laces in private and museum collections.

Design is emphasized throughout the book so that the reader may gain a deeper appreciation of outstanding examples of fine laces, not mere admiration for skillful technical excellence.

For the student who wishes to be able to identify laces there is a section which briefly describes the various types, with each one clearly illustrated. For the historically minded reader, the pedigrees of different laces should prove particularly interesting, while for the person eager to learn the techniques of lace-making there are many pages of directions for the construction of a wide variety. The direction

for the care and cleaning of old laces will be appreciated by many collectors.

The 239 well-chosen photographs make this book an exceedingly valuable source for the study and identification of these fragile textiles.—Mary Evans, *Teachers College, Columbia University.*

When You Marry. By Evelyn Millis Duvall and Reuben Hill with chapters in collaboration with Sylvanus M. Duvall. Revised edition. Boston: D. C. Heath and Company, 1953, 466 pp., $3.50.

Again, with their families co-operating and with the same sense of humor, Dr. Duvall and Dr. Hill present their book, *When You Marry,* in a new and revised edition. A much improved typography and format make it more inviting than its predecessor.

The practical applications of the findings of recent research in the fields relating to personal-family adjustments are discussed in a style easy to read and assimilate. Clever titles and apt drawings introduce each chapter which begins with questions raised by young people themselves; selected readings and technical references follow.

Part I, "Anticipating Marriage," deals with dating, marriage, morality, and wedding plans. Part II, "What It Means to Be Married," discusses money matters, common conflicts, divorce, and what holds a family together. Part III, "The Making of a Family," covers the physiological, psychological, and religious aspects of a family. Part IV, "Family Life, Yesterday, Today and Tomorrow," closes the book on an optimistic note in an uneasy world.

When You Marry will be of interest to parents of young people of marriageable age, the young people themselves, and the newly married, as well as to teachers and counselors.—Elizabeth Storm Ferguson, *Ames, Iowa.*

Food-Borne Infections and Intoxications. By Fred W. Tanner and Louise P. Tanner. Second edition. Champaign, Illinois: The Garrard Press, Publishers, 1953, 769 pp., $12.

The second edition of this book is much more informative than the first book. It is much more completely documented and covers a wider scope of our knowledge in relation to food-borne infections and intoxications, especially *Staphylococcus* food poisoning. The author has compiled a comprehensive review of the literature on the subject. This feature makes the book extremely valuable from the reference standpoint.

A great deal of emphasis has been placed on the causes of illness due to foods, particularly heat-stable gastrointestinal irritants formed by *Salmonella* and *Micrococcus* pyrogenes (Staphylococcus). The old idea of ptomaine poisoning has been carefully elucidated.

A large section of the book has been devoted to metals in foods and their relation to illness. This phase of food poisoning has been overlooked in the past. However, with the current use of new insecticides, pesticides, fungicides, herbicides, and germicides this problem has become more complex and widespread.

Reference to the literature on the subject is comprehensive and pertinently placed, and this feature alone makes this edition an invaluable reference book on food poisoning.—Inez Prudent, *Ohio State University.*

Health and Fitness. By Florence L. Meredith, Leslie W. Irwin, and Wesley M. Staton. Second edition. Boston: D. C. Heath and Company, 1953, 339 pp., $3.20.

The many significant developments in the field of health and hygiene have been included in this revised text for students in secondary schools. The authors have dealt ably with the subjects covered, such as the newer knowledge of nutrition, a new way to prevent dental caries, uses of the antibiotics.

The scope of the material covered is wide. Based on two premises: (1) what the student wants to know and (2) what he needs to know, this book should motivate and hold the interest of the high school boy or girl.

The chapter "Choosing the Daily Dietary" is especially appropriate for this age group. The need for adequate food, a statement of food habit survey results, the Basic Seven foods and recommended quantities, and a list of 100 calorie portions are included.

Health activities and services at national, state, and local level are discussed to inform the student of the resources available for healthful living in his community.

Chapter study guides, a glossary in which words are defined in terms of their meaning and application in hygiene and physiology, and excellent illustrations make *Health and Fitness* a most usable and interesting text. Its use would appear to fulfill the statement made by the authors: "The object of school health education is to provide students with the knowledge, attitudes, habits and practices necessary for the highest possible level of personal and community health."—Louise Moody, *Illinois Department of Public Health, Aurora.*

FROM THE

Editor's Mail

"Use of Rooms in Farm Houses by 53 Pennsylvania Families," by Francena L. Nolan and M. E. John, is a 20-page report of an intensive study to determine extent of activities carried on in farm houses and their relationship to factors such as size and arrangement of rooms. Requests for single copies of the bulletin, No. 566, will be filled as long as the supply lasts. Write to The Pennsylvania State College School of Agriculture, Agricultural Experiment Station, State College, Pennsylvania.

Requests by parents of preschool children and by teachers with varying degrees of nursery school teaching preparation has made necessary the publication of a 1953 edition of "The Nursery School Portfolio." It is a complete revision of the 1945 edition. The portfolio contains 12 four-page leaflets, each written by an outstanding authority, on the topics on which information has been most frequently requested. The handy portfolio package sells for 75 cents, with a 2 per cent discount allowed on orders for 25 or more portfolios. The individual leaflets are 10 cents each, and discounts on quantity orders of them are available. Order from Association for Childhood Education International, 1200 Fifteenth Street, N.W., Washington 5, D. C.

Both human and technological requirements for kitchens were considered in the research at Cornell University that has resulted in the publication "The Cornell Kitchen," an attractive 96-page illustrated booklet. Historical information to help evaluate present-day kitchens is given in the first chapter. Then the socio-psychological aspects of kitchen design as they are related to physical factors are told, and the need for kitchen planning that is family-centered is shown. An interesting feature is the listing of minimum standards of kitchen design based on a study of the physiology and psychology of the woman using the kitchen, her family's social and economic position, the nature of materials to be used, and the functional work patterns of the home. In the appendix will be found valuable reference material in the form of charts giving data on storage requirements of different foods and kinds of resistance to deterioration of the different materials used for work and floor surfaces. There is also a list of utensils and supplies to be considered in planning kitchens. To obtain this useful reference booklet, send to the Mailing Room, New York State College of Agriculture, Cornell University, Ithaca, New York. Price $1.

A wealth of descriptive material which will give a home economics teacher insight into the present-day philosophy of education for home and family living and the key role she can play in the modern community is included in "With Focus on Family Living" by Muriel W. Brown. It is "the story of four experiments in community organization for family life education" which begins in 1938. In the first four chapters, which are grouped under the general heading "An Idea Begins to Develop," the history of vocational home economics is briefly traced. The next general heading, "This Is What Happened," covers the detailed descriptions of the four widely differing experiments. The last section, headed "Experience Is a Wonderful Teacher," gives five major conclusions. The 248-page illustrated bulletin may be ordered as Office of Education Vocational Division Bulletin No. 249, Home Economics Education Series No. 28, from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. Price 60 cents.

The Merrill-Palmer School has announced the publication of the 1953 "Supplement to a Directory of Nursery Schools and Child Care Centers." It may be obtained for 50 cents. If you wish to order the directory itself with the supplement, send $1.50. Orders should be directed to Librarian, Merrill-Palmer School, 71 East Ferry Avenue, Detroit 2, Michigan.

Vocational home economics teachers work with the teen-agers whose needs are described in a report prepared by the Interdepartmental Committee on Children and Youth of the Federal Government under the title "Youth—The Nation's Richest Resource." The 54-page booklet, published by the Bureau of Labor Standards of the U.S. Department of Labor, first examines the progress being made toward national education goals and describes "Teen-Agers on the Job." Then recommendations for the kind of job and education counseling services needed by teen-agers are made. The booklet suggests ways communities, states, and the several federal agencies can work together to meet further needs. Order by title from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. Price 20 cents.

A progress report on four experiments aimed at discovering means to increase efficiency of general education is given in a booklet published by the Fund for the Advancement of Education Established by The Ford Foundation. Observations are made on college and secondary school curriculum planning and accommodation to the difference in students, though the report is not intended to give final conclusions. Title of the 127-page report is "Bridging the Gap Between School and College," and it may be requested from the Fund at 575 Madison Avenue, New York 22, N. Y.

The Housing and Home Finance Agency, Public Housing Administration, has prepared a 30-page bulletin which is a digest of administration experiences of local housing authorities that have elected to open their low-rent public housing projects to occupancy by eligible low-income families without regard to race, creed, color, or national origin. It answers requests of other persons responsible for housing projects. The bulletin, whose title is "Open Occupancy in Public Housing," may be ordered from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price 20 cents.

NEWS NOTES

GENERAL

Mrs. Elizabeth S. Herbert, president of the AHEA, was invited by the Grocery Manufacturers of America, Inc., to serve on the panel of judges for the 1953 Life Line of America Trophy in the newspaper class.

Grace Bulman of the Veterans Administration, Washington, D. C., took office on August 28 in Los Angeles as president of the American Dietetic Association. **Fern W. Gleiser** of the University of Chicago, president-elect, will assume office in 1954-55.

Dr. Lucile Reynolds, formerly of the U.S. Department of Agriculture, in September became executive secretary of the National Consumer-Retailer Council, which now has headquarters at Drexel Institute of Technology, Philadelphia.

Loraine Myers, associate professor of nutrition and research at the University of Mississippi, died suddenly on July 27 at the University of Iowa Hospital, where she was engaged during the summer in research. Dr. Myers was awarded the Evaporated Milk Association fellowship by the AHEA in 1947-48 for study toward her doctorate at the University of Iowa.

Mrs. Rowena S. Carpenter of the poultry branch, Production and Marketing Administration, U. S. Department of Agriculture, became Mrs. Leslie J. Mainland on August 21.

Sue Taylor of the Foreign Agricultural Service, U. S. Department of Agriculture, became Mrs. Howard Murry on September 2.

INTERNATIONAL

Mrs. Katharine M. Alderman and her husband, Professor William Alderman, left St. Paul, Minnesota, in September en route to the University of Salonika in Greece, where, as Fulbright professors, Professor Alderman will lecture in horticulture and Mrs. Alderman in home economics.

Dr. Flemmie P. Kittrell, head of the home economics department of Howard University, left Washington, D. C., in early August en route to India to teach during this academic year at the University of Baroda.

Dr. Abby Marlatt, who is on a year's sabbatical leave from Kansas State College, left in September for a year at Beirut College for Women, Beirut, Lebanon, where she will teach foods, nutrition, and dietetics.

Grace K. Nadig, director of the home economics department of Temple University, has been appointed by the Food and Agriculture Organization of the United Nations to spend a year in Egypt working in conjunction with the Technical Assistance Program. She will serve as technician and teacher in Sirs el Layyan, a village 40 miles from Cairo. As a member of an international staff of 24 people she will be responsible for training men and women from six Arabic-speaking countries—Egypt, Iraq, Saudi-Arabia, Lebanon, Hashamite Jordan, and Syria—who, in turn, will become leaders to train their own people.

Mrs. Bernice K. Finn, substituting for Katharine Holtzclaw, participated in a 3-day meeting sponsored by the French Ministry of Agriculture to celebrate the fiftieth anniversary of the establishment of home economics schools in France.

Mrs. A. M. Berry of Brisbane, Queensland, Australia, was elected president of the Associated Country Women of the World at the 7th Triennial Conference in Toronto, Canada, August 12 to 22.

Irene Athanassiadou of Athens, Greece, a 1953 home economics graduate of Montana State College, whose two years of study there was sponsored by the Home Economics Club, assisted by the local chapter of Phi Upsilon Omicron, is studying for her master's degree in home economics education this year at the Pennsylvania State College.

Broadening home economics was the theme of a one-day home economics conference in Beirut, Lebanon, on April 25 for which about one hundred persons registered. Speakers included Margaret Fedde and Pergrouhi Najarian (AHEA's 1951-52 Omicron Nu international scholarship student at Cornell University) of the Beirut College for Women and Helen Irene Smith and Catherine E. Cleveland of the Point IV Program in Lebanon. Exhibits consisted of home economics books and bulletins and examples of Lebanese handcrafts and of work done in the secondary schools.

Formation of a Lebanese home economics association will be discussed at a fall conference.

The 1953-54 interchange of teachers program administered by the Office of Education, Department of Health, Education, and Welfare, includes the following home economists: *Mildred B. Roberts,* San Mateo High School, San Mateo, *California,* and *Christina Coupar,* Rockwell Junior Secondary School, Lawton Road, *Dundee, Scotland; Yvonne G. Puderer,* Gretna High School, *Gretna, Louisiana,* and *Patricia R. Owen,* Modern School, *Dursley, Gloucester, England; Pearl Katowitz,* Patrick Henry Junior High School, *Cleveland, Ohio,* and *Kathleen P. Riley,* Cavershan Secondary School, *Cavershan, Reading, England;* and *Barbara Shepard,* Tredyffrin-Eastown High School, *Berwyn, Pennsylvania,* and *Angela V. Alexander,* High School for Girls, *Southport, Lancashire, England.*

Theresia Kraan of R. K. Huishoudschool, *The Hague, Netherlands,* is teaching at Escondido Union High School, *Escondido, California,* and *Mrs. Frances Ryan* is at the Christelijke Huishouden Industrie-School in *Oudenoord, Utrecht, Netherlands.*

STATE ACTIVITIES

ARKANSAS. "Homemaking Education Helps in Improving Community Living" was the theme for the Annual Conference for Homemaking Teachers held at Arkansas State Teachers College, Conway, from August 18 to 21. Improving family living in the community through organized classes, home visits, and home experience was emphasized by discussion groups.

Ruth Powell, state supervisor of the school lunch service and former president of the Arkansas Home Economics Association, has been appointed to Secretary of Agriculture E. T. Benson's advisory group on long-range plans for the National School Lunch Program.

Mrs. Lorene Raymond, former home economics teacher at Cove, has been appointed foods instructor at the University of Arkansas.

CALIFORNIA. Pauline F. Lynch retired in June after 30 years of teaching home economics in California—14 years on the staff of the University of California at Los Angeles and the past 16 years as an associate professor at San Jose State College. She is planning a trip to Europe and also hopes to complete work on her book on children's clothing. Miss Lynch was one of the group who, in the early '20's, organized the California Home Economics Association. She served as vice-president and then president of its southern section and was president of the state association in 1934-35.

DISTRICT OF COLUMBIA. Luncheon speakers at the annual May meeting of the **D. C. Home Economics Association** were Mrs. Eugenia Hatcher, whose subject was "Do You Know Your Homemakers?", and Esther Foley, who spoke on "A Way of Life."

At the May meeting of the *D. C. Home Economists in Business*, Mrs. John Murdock, wife of a former congressman from Arizona, spoke on Brumidi, the Michelangelo of the United States Capitol. Mrs. Murdock spent 14 years ferreting out the life history of this little-known artist.

At the April meeting of the *Homemaker's Group*, Lucile Reynolds described "Family Life and Living Conditions in Formosa" and illustrated her talk with her own colored slides.

IDAHO. "Family Centered Program in Homemaking" was the theme of the 17th Annual State Homemaking Teachers' Conference from August 3 to 7 at the University of Idaho. Out-of-state personnel assisting with the program included Kay Secrist of the Advance Pattern Company; Maie Nygron of Oregon State College, who conducted an FHA workshop for teachers; Ann Martin and Della Morgan of San Francisco, American Red Cross home nursing representatives, who held a short workshop; and Goldie Manning of the Wheat Flour Institute, who gave a bread demonstration and showed filmstrips on weight reduction. Marion Featherstone of the University conducted workshops on home furnishings.

Helen Scheve, recently associate co-ordinator of the Family Life Education Program in Lincoln, Nebraska, is now home economics teacher trainer at the University of Idaho.

Helen Lamprecht is the new head of the home economics department at Ricks College, Rexburg. She resigned as home demonstration agent in Gooding County in August.

Mary Jane Paterson, who received her BS from the University of British Columbia and MS from the University of Washington, joined the Idaho extension staff as nutritionist on July 1.

New home demonstration agents in Idaho include **Joan Stimmel,** Fremont County; **Geri Chindgren,** Payette County; **Ann Brooks,** Gem County; **Mrs. Josephine Mason,** Minidoka County; and **Mrs. Shirley Myers,** Bear Lake County.

Hilda Frederick became home agent-at-large and home management specialist in September.

ILLINOIS. In-teacher education services are being extended this year by the department of home economics education at the University of Illinois to include special supervisory visits and conferences for University graduates teaching for the first time. Mary Mather is in charge of the program.

Ralph Tylor, dean of the division of social sciences at the University of Chicago, assisted staff members of the University of Illinois home economics department in an evaluation workshop from September 14 to 15. They reviewed progress in evaluation of the core curriculum since 1950 and developed curriculum plans for the next five years.

Mrs. Kathryn Van Aken Burns, state leader of home economics extension, was one of five initiated as a national honorary member of Omicron Nu at the society's 19th conclave at Iowa State College, June 19 to 21.

Rita Whitesel of the University of Illinois has been serving as a consultant to the St. Charles Manufacturing Company, St. Charles, Illinois, in developing clothing laboratory equipment.

INDIANA. Plans under way for over five years finally developed into reality at Ball State Teachers College during the summer term when the home economics department moved into its new $500,000 home—the entire first floor of the Practical Arts Building.

Mrs. Phyllis Kinnison, formerly a high school teacher of home economics and supervisor of student teachers from the University of Missouri and from North Missouri State Teachers College, is a new member of the home economics education staff at Purdue University.

Mrs. Justine O'Reilly, a member of the home economics education staff at Purdue University since 1946, resigned to become city supervisor of home economics in Portland, Oregon.

KANSAS. New, modern quarters now house the department of home economics at Kansas State Teachers College, Pittsburg, in the former cafeteria building, which was completely remodeled and redecorated for homemaking instruction.

Mrs. Selma Andrews in September joined the foods and equipment department of *Household Magazine* in Topeka.

From Kansas State College comes news that **Dr. Gladys E. Vail,** former head of foods and nutrition, assumed similar duties at Purdue University on September 1. **Gwendolyn Tinklin** is now acting head of the department, and for the year **Dr. Dorothy L. Harrison** is in charge of home economics research. **Mary Smull,** former professor of institutional management, is now chief dietitian at Wesley Hospital, Wichita. **Grace Smith** of New Zealand is a new graduate assistant, and **Mrs. Lydia DeMott Faubion** is an instructor in institutional management. **Jane Ferrell** has joined the staff of the University of Wisconsin. **Mrs. Leone Kell** of the department of child welfare and euthenics is back on the campus after a year's leave. **Dorothy A. Trepal** is now instructor in the art department. The division of College extension has two new district agents: **Annabelle Dickinson,** formerly agent in Barton County, now in the northwest district; and **Mary Ruth Van Skike,** formerly agent in Allen County, now in the eastern district.

KENTUCKY. "Keep in Tune—'There's No Place Like Home'" was the theme for the annual home economics teachers conference at Hardinsburg. "From Calico to Fiber E" was discussed by Beth Peterson, home economist for E. I. du Pont de Nemours & Company, who displayed a variety of fabrics made of chemical fibers; "Electrical Equipment for the Home" was discussed by Lura Jim Alkire, manager of the Consumer Institute of the General Electric Company, Louisville; and "Minimum Foundation Program of Education for Kentucky" by Wendell P. Butler, state superintendent of public instruction.

How to take and make use of a community survey was demonstrated by one of the teachers. Group work on methods to improve teaching of

Using Evaporated Milk in the Classroom and Kitchen

LESSON NO. 3-B

by Mary Blake
Carnation Home Service Director

Why Carnation Milk takes the Place of Expensive Whipping Cream

In the preparation of food dishes Carnation enjoys two advantages over all other forms of milk. First, it is specially heat-refined. This makes Carnation a better-blending, flavor-enhancing, superior milk for cooking and baking.

Secondly, Carnation is concentrated to twice the richness of ordinary milk. As a result, it has the consistency of expensive cream and whips easily. Yet Carnation costs only one-third as much as whipping cream. In addition, a cup of Carnation yields three cups of whip, while a cup of cream gives you only two cups of whip.

How to Use it

Whipped Carnation is used just like whipped cream—as a topping for fruit, desserts and salads, and in frozen desserts such as the recipe on this page.

SAVE THIS RECIPE—CUT OUT AND PASTE ON A 3" x 5" CARD

For reprints of this lesson write Carnation Co., Dept. B-113, Los Angeles 36, Calif.

"from Contented Cows"

Carnation Cranberry Freeze

(Makes 6 to 8 servings)

1 cup undiluted Carnation Evaporated Milk
2 tablespoons lemon juice
1-1/2 cups (about 16 medium) diced marshmallows
2 cups (1 pound can) whole cranberry sauce
1 cup drained canned crushed pineapple
1/4 teaspoon salt

1. Chill Carnation in refrigerator tray until ice crystals form around edges (about 20–25 minutes). Whip until stiff (about 1 minute). Add lemon juice; whip very stiff (about 2 minutes more).

2. Combine marshmallows with cranberries, pineapple and salt. Then fold in whipped Carnation. Freeze in refrigerator tray until ready to serve (about 3–4 hours).

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home economics occupied much of the time of the three-day conference.

MARYLAND. "Our Professional Opportunities" was the theme of the program planned by the Maryland Home Economics and Dietetic Associations for their luncheon and joint afternoon meeting at Hood College on May 2. Mrs. Mildred Buchanan Flagg, author, lecturer, homemaker, and world traveler of Newton, Massachusetts, spoke on "Your Call to Greatness," and a panel that included a dietitian, a nutrition specialist, a home economics teacher, and a home service representative discussed "Alumnae View Professional Opportunities."

A total of 1,153 women attended the Twenty-seventh Annual Rural Women's Short Course held under the direction of Mrs. Florence W. Low, home demonstration leader, assisted by the home demonstration staff, at the University of Maryland from June 15 to 20.

Preceding the opening Vesper Service in the new University Memorial Chapel, an organ recital was given which included the playing of the carillonic bells, a gift from the State Rural Women's Short Course Club and the homemakers of Maryland.

At the final assembly, H. C. Byrd, president of the University, presented certificates to 123 women who had attended the Short Course for four years and silver pins to 63 women who had attended for eight years.

The theme of "Tell How—Show How" was put into practice when 200 4-H members came to the University of Maryland for a week end of preclub week training prior to the 31st Maryland 4-H Club Week at the University from August 3 to 8, when the enrollment was 1,332. They were the tribe, song, and recreation leaders who worked with the 24 "Indian tribes" during the week to build a 4-H spirit that made the group practically self-governing.

Marietta Henderson, recently coordinator of family life education in Asheville, North Carolina, became head of the home economics department at Hood College in September.

MASSACHUSETTS. Agnes Mahan, who had been the only household editor of the *Boston Globe,* retired this past summer after 51 years of outstanding activity. **Dorothy A. Crandall** of the Garland School–Boston University faculty is the new household editor.

Gretchen McMullen is continuing to serve as one of 16 consumer consultants appointed throughout the nation last year by the Food and Drug Administration. She represents the Northeast Area.

MICHIGAN. Susan Burson is the new head of home economics at Michigan State Normal College, Ypsilanti, succeeding Estelle Bauch, retired.

Dr. Lilyan Galbraith has been appointed head of the home economics department at Western Michigan College of Education, Kalamazoo, to succeed Sophia Reed, retired.

Florence Biddell has been named acting head of home economics at Central Michigan College of Education at Mt. Pleasant following the retirement of Rose J. Hogue.

Marguerite Lofink, recently of Kansas State College, is now supervisor of home economics for the Michigan Department of Public Instruction.

Dr. Elizabeth Wiegand, formerly of Cornell University, is assistant professor in the department of home management and child development at Michigan State College.

Dorothy M. Greey, AHEA's 1949-50 Ellen H. Richards fellow at the University of Chicago, became Mrs. Francis Van Bortel in August. She is living in Chicago and hopes to complete work for her PhD this winter.

A home economist has joined the Information Services staff at Michigan State College as assistant extension editor. She is **Gail Hill,** formerly with the Omaha *World-Herald.*

MINNESOTA. Dr. Helen Coats Sherrill became associate professor of home management and family relations at the University of Minnesota on September 1.

MISSISSIPPI. "How to Interest the Students of Mississippi in the Home Economics Field" was the theme of the **Mississippi HEIB's workshop** in Jackson, June 27 to 29. Mrs. Ethel Bowman, president of the Mississippi Home Economics Association, in her opening address stressed evaluation of self and service.

Other high lights of the program were the group's visit to a television station where they were a part of the program conducted by Frances Fortenberry, home economist for the Mississippi Power and Light Company, on one of her regular TV programs; and the Bosses' Dinner engineered by Earline Moss, home economist for the Mississippi Valley Gas Company.

Johnie Christian of the Home Economics Education Branch, Office of Education, was a consultant for the family living group at the Third Work Conference on General Education of the Mississippi Association of Colleges from July 26 to 30 at Mississippi Southern College. Dr. Christian also spoke to the total conference group on "Family Living as a Part of General Education."

Mrs. Vera T. Barnett has returned to the University of Mississippi after graduate study in family life at Florida State University.

Pearl Markham, nursery school teacher at the University, was married to Clovis S. Burch on September 6.

New home economics staff members at the University of Mississippi include **Dr. Dora R. Tyer,** formerly co-ordinator of the vision survey at Tulane University, professor of family health; **Frances Watts,** formerly of the University of Arkansas, assistant professor of home management and equipment; and **Dr. Jennie M. Harper,** a graduate of Cornell University, professor of nutrition.

MONTANA. Helen Adiseshiah, a Fulbright student from India who recently received her doctorate from New York University, in early July spoke to the classes in family relationships and child development at Montana State College on "Recent Developments in Indian Education for Women."

New home economics staff members at Montana State College include: **Hermina Zipple,** director of dormitories; **Susan Delony,** assistant professor of clothing and textiles; **Cecilia Roach,** instructor of clothing and textiles; and **Beryl Shankland,** dietitian at Hamilton Hall.

NEW MEXICO. A new major added to the curriculum in foods and nutrition at New Mexico A & M College is designed to serve students interested in hospital dietetics, food service supervision, nutrition and food research, experimental kitchen programs, public utility demonstrations, and home demonstration work in the Extension Service.

Sara Kerr, former extension worker in Arizona, New Mexico, New York, New Hampshire, and Hawaii, who has been hospitalized since January 4, recuperating from injuries received in a fall, expected to leave Roosevelt

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General Hospital, Portales, by November 1. The East Valley View Homemakers Club organized 28 years ago by Miss Kerr honored her with a party at the Hospital in celebration of the Club's 1953 anniversary.

Dorothy Y. Hanny, former Grant County home agent, was appointed home management agent of the New Mexico Extension Service on June 1 to succeed Veda Strong, who died on August 17, 1952.

Violet Shepherd, formerly with the Nebraska Extension Service in Cheyenne County, has been appointed home agent in Grant County.

Louemma Breckenridge, formerly in Colfax County with the Extension Service, now directs "Kay's Kitchen," a daily television show over Station KKTV in Colorado Springs, Colorado.

Mary Lee Hurt of Michigan State College was consultant at the workshop on training student teachers at New Mexico A & M College from August 24 to 29.

Marion Willoughby of Purdue University conducted a summer clothing workshop at New Mexico Highlands University, Las Vegas.

Dr. Julia Southard Lee of Lebanon, Missouri, and **Patricia Wood** of Logan, Utah, are new members of the home economics staff at New Mexico A & M College.

NEW YORK. Medical and social needs of older people were discussed at the semiannual meeting of the Association of Upstate New York Nutritionists and Home Economists on June 3 at Lake Placid. This group is composed of nutritionists from health agencies and home economists from welfare agencies in upstate New York. The meeting was held in conjunction with the Annual Health Conference of New York State.

"The Challenge of Aging" was presented by the opening speaker, Raymond Harris, MD, cardiologist and assistant medical director at the Ann Lee Home, Albany. The panel which discussed "How We Help to Meet These Needs" included a public health nurse, a community consultant on aging, a welfare administrator, and a nursing home operator.

NORTH DAKOTA. Designed especially for community leaders and planned to provide experience to help boys and girls grow as individuals, to help them see themselves as members of a family and a community, to aid them in career planning and mate selection–to enrich family life and ultimately to enrich community life–North Dakota's first Family Life Education Workshop was held from June 15 to 26 at the North Dakota Agricultural College. Cosponsored by the State Department of Home Economics Education and the North Dakota Agricultural College, it was directed by Rose Cologne, community adult education specialist at the Pennsylvania State College.

"Better Teaching — Improved Homemaking Programs" was the theme of the 27th Annual North Dakota Conference of Vocational Homemaking Teachers held from August 24 to 28 at North Dakota Agricultural College. Frances Webb of Arkansas State Teachers College, Conway, was the leader. Major emphasis was placed on improved methods of teaching management throughout child development, foods, clothing, home furnishings, and family relationships as taught to high school students.

Four $100 scholarships have been awarded for the first time this year by the North Dakota Home Extension Agents Association and the North Dakota Homemakers Council to recent high school graduates in the state to encourage more girls to enroll in college to prepare for a home economics career. Recipients must attend a college or university offering a major in home economics.

Mrs. Florence P. Day, home management agent since 1938 in the North Dakota Extension Service, retired on September 1 and has accepted a position as roving director and instructor in housing at Kansas State College.

New appointments in the Extension Service home demonstration program are: **Willie Vermillion** as assistant agent in clothing to succeed Marjorie Manahan, resigned, and **Ella Louise Ollenburg** as assistant agent in home management.

The following county home agents have been appointed: **Mrs. Shirley Owen,** Wells County; **Twila Watterud,** McHenry County; **Mrs. Beatrice Grodahl,** Nelson County; **Mrs. Esther Schoewe,** Barnes County; **Mrs. Byerg Sawyer,** Bottineau County; and in Richland County, **Betty Fors** to succeed **Jane Rutherford,** home extension agent since 1937, who retired on July 31.

New home economics staff members at North Dakota Agricultural College are: **Lorissa Sheldon,** assistant professor of foods and nutrition; **Marion Benson,** associate professor of home economics education; and **Kathryn Weesner,** professor and chairman of related art.

Constance Leeby, associate professor of foods and nutrition at North Dakota Agricultural College since 1923, has retired.

OHIO. Hazel Price, recently retired home economics education professor at Ohio State University, has consented to become the permanent editor of the *Ohio Newsletter.* The Ohio Home Economics Association, recognizing the importance of this communication to its members, has made this position an appointive one and is paying a small honorarium for the effort involved. Ohio home economists are eagerly awaiting publication of Dr. Price's booklet on important steps in the development of home economics in Ohio. This history was gathered largely by the Ohio Association council members last year as they prepared for this–the Ohio Sesquicentennial year.

The college and university department of the Ohio Home Economics Association has formed a **committee to advance home economics in general education in colleges.**

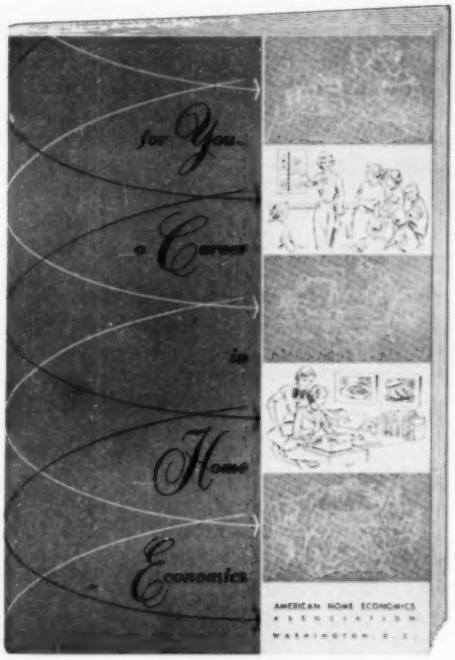
Three Ohio colleges have new heads of their home economics departments this year: Antioch College, **Dr. Marjorie East;** University of Cincinnati, **Dr. Elizabeth D. Roseberry;** and University of Toledo, **Dr. Helen Marley.**

OKLAHOMA. A "Choosin' & Usin' Equipment" presentation by the home service department of the Oklahoma Natural Gas Company for the Vocational Homemaking Teachers' Conference at Stillwater on August 12 spotlighted the modern range and the clothes dryer.

Twelve ranges were part of a style show of modern living fashions. Homemakers representing different family patterns from the bride to grandmother modeled new fashions, with the usual running commentary. Each model then turned to her range and described its features in relation to the family needs.

The five dryers used represented the basic types found in all dryers. They were used to demonstrate performance in drying the latest fashions in everything from household fabrics to baby clothes and Orlon coats.

"How to Make Your Writing Effective" was discussed by Bernice



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Aloha— One morning last week I journeyed from Honolulu out to Dole's great Wahiawa plantation to watch pineapples being planted. It was a magnificent day—but then, *any* day here is magnificent!

I was fascinated by the fact that the first thing done is to lay endless rows of black mulch paper. The mulch paper helps prevent weed growth, and conserves moisture and fertilizer. Besides that—if you'll pardon my imagination—it makes a beautiful pattern against the red earth, with the black lines contouring off toward the Koolau Mountains to the east.

At noon time, we drove to the town of Wahiawa and had lunch on the river bank. Our lunch was brought down from a little restaurant—really *good* chicken sandwiches and Kolekole (Ko-lee-ko-lee) Salad. The latter—*delicious,* and *so easy* to make: Combine drained DOLE Pineapple Tidbits, sliced green celery, chopped green pepper and bits of pimiento in desired proportions; season to taste with salt. Serve individual salads on crisp greens. Top with Sour Cream Dressing, made by blending equal parts of mayonnaise and sour cream.

Well, after I filled myself with Kolekole Salad in very unladylike proportions (it's *that* good), we went back to the plantation for the actual planting. Each planter carries a narrow, steel trowel which he plunges through the mulch paper at spots marked. He makes the hole with a wonderfully *deft* twist of the wrist . . . thrusts the pineapple slip into the hole . . . and withdraws the trowel in such a way as to let the soil pack naturally around the plant. If *only* I had such talent for my garden at home!

Before I end this letter, I must tell you about an idea I had. If you're coming to the Home Economics Convention in San Francisco next June (and so *many* of you are)—why not continue on for a stay in Hawaii? You can be sure that the DOLE cannery and plantations will welcome you with open arms!

I'll write again soon,

Patricia Collier,
DOLE Home Economist

Strawn of *Woman's Home Companion* when the Southern Gas Association Home Service Conference met in August at the Oklahoma Natural Gas Company in Tulsa.

"New Materials for the Functional Home" is the subject of a series of 18 programs sponsored by Susan Millier over the University of Oklahoma Radio Station WNAD. Many of the programs have been developed by students in connection with their classwork.

A co-operative project was carried out by the U.S. Bureau of Indian Affairs, State Health Department, and School of Home Economics at the University of Oklahoma. Thirty-one Kiowa Indian families near Carnegie were studied as to their dietary habits and physical and nutritional condition. Special attention was paid to conditions that might indicate a nutritional deficiency. Blood-tests consisted of plasma protein and hemoglobin tests, and ascorbic acid and pyruvic acid tests. Mrs. Florine Bettis, dietitian in the Crippled Children's Hospital, was responsible for part of the study.

Mary E. Kuhlman, with the Farmers Home Administration for 17 years, on August 10 joined the staff of the American Institute of Baking as nutrition field representative for the southwestern states, with headquarters in Dallas, Texas.

Alice M. Hastings, dietitian at the Oklahoma A & M College for the past four years, retired on August 8 after almost 40 years of work either as a dietitian or teacher of home economics. For 12 years she and Emma Chandler operated their own cafeteria, the Wayside Inn, near the A & M campus.

SOUTH DAKOTA. The South Dakota Home Economics Association sponsored during the past year the sale of a specially designed stationery depicting outstanding areas and historical events in the state. The first aim of the project was fulfilled this year when enough money was earned to make it possible to bring a foreign student to the state with the aid of an AHEA international scholarship. The student is Laura Guibergia of San Salvadore de Jujuy, Argentina, who is studying at South Dakota State College.

The second aim was also achieved by the granting of a $125 scholarship to a South Dakota freshman home economics major at South Dakota State College.

Frances Hettler, who received her PhD from Iowa State College on August 28, is now head of the foods and nutrition department at South Dakota State College. She was formerly with the Iowa Extension Service.

TEXAS. Alice C. Stubbs has been appointed professor of home economics and head of the department at Mary Hardin-Baylor College, and **Mrs. Henrietta C. Stone,** associate professor.

UTAH. Utah now has **three active homemaking clubs:** the Uintah-Duchesne Homemakers, the Gamma Phi Omicron Alumni organization at Provo, and the Utah Homemakers group of Salt Lake City.

Mrs. Winnifred Jardine received for the third time the National Dairy Council's award for outstanding work as food editor of the *Deseret News.*

VIRGINIA. The annual meeting of the **Virginia Federation of Home Demonstration Clubs** was held as a part of the Institute of Rural Affairs at Virginia Polytechnic Institute from July 29 to 31. More than 800 women, rural leaders, from all over the state attended the Institute. The closing program of the meeting was a dramatization of progress made during the 50 years of demonstration work.

Mary Hille McCoy, recently home demonstration agent in Loudoun County, has been appointed district home agent-at-large, with headquarters at Virginia Polytechnic Institute.

"Newer Developments in Human and Material Resources Affecting Homemaking Education" was the theme of the state-wide conference for teachers and supervisors of homemaking education sponsored by the home economics section of the State Department of Education at Virginia Polytechnic Institute from August 3 to 8. Out-of-state speakers for the general sessions included Edna P. Amidon, chief of the Home Economics Education Branch of the Office of Education, Department of Health, Education, and Welfare; Mrs. Marguerite Zapoleon of the Bureau of Labor Statistics, U. S. Department of Labor; and Sylvanus M. Duvall of George Williams College, Chicago. Nine daily "interest group" meetings gave teachers and supervisors an opportunity to discuss problems in the areas of family relations, home experiences, and food management.

WEST VIRGINIA. "Home Economics Meets Today's Challenges" was the program theme of the annual meeting of the **West Virginia Home Economics Association** in Jackson's Mill on May 1 and 2. Speakers and their topics included Miriam Lowenburg of the Pennsylvania State College, who spoke on "A Child Needs to Eat"; Iris Davenport of *Farm and Ranch Magazine,* "How Do You Rate?"; and Stewart Smith, president of Marshall College, "Marks of an Educated Person."

"America Is Great Because of the Home" was the subject discussed by Thomas R. Hornor, assistant superintendent of Kanawha County Schools, at a luncheon sponsored by the home economics group during the meeting of the West Virginia Education Association in Charleston.

Georgia Amic, former foods instructor at West Virginia University, is now teaching at the University of Missouri.

Mrs. Esther McAlister, former home management supervisor in New York, has joined the staff of West Virginia Wesleyan College as head of the home economics division.

WISCONSIN. Dr. Elfriede Frederick Brown, who had been on the University of Utah staff since 1948, became director of the home economics department at Milwaukee-Downer College in September.

WYOMING. Preliminary resource materials for the various child development units in the state secondary school curriculum were developed through group work at the Annual State Homemaking Teachers' Conference in Laramie from August 17 to 21, when the 44 vocational homemaking teachers attending concentrated on the teaching of child development under the leadership of Lydia Swanson of Iowa State College.

Two workshops were held at the University of Wyoming during the summer session, one in family life, directed by Myrtle Mainquist Gillespie and Verna J. Hitchcock, and another in tailoring, directed by Ritta Whitesel of the University of Illinois.

Marion Yule, recently assistant state supervisor of home economics in Iowa, is now teacher trainer at the University of Wyoming.

Roberta Cunningham of Orient, Iowa, was appointed assistant professor of foods and nutrition at the University of Wyoming, effective September 1. She succeeds **Bernadette Costello,** who resigned to be married.

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FLASHES FROM OUR ADVERTISERS AND EXHIBITORS

"Marketing with a Purpose," a four-page lesson plan on marketing, is just off the press at Borden's and is available to teachers and home economists upon request. [Write to Educational Department, The Borden Company, 350 Madison Avenue, New York 17, N. Y.] Accompanying the lesson plan is a large four-color, 40- by 30-inch chart which shows ways Borden's Eagle Brand sweetened condensed milk combines with other ingredients to make different quick desserts and sweets. A day's menu and a Sunday dinner menu, with dessert recipes, provide discussion and laboratory problems for student participation.

Anne Lyng has joined the home economics department of Procter & Gamble and will be in charge of the department's work on soaps, detergents, and laundry practices. She was formerly home service representative of the Rochester (New York) Gas and Electric Corporation, specializing in laundry equipment and procedures. During the last war Miss Lyng served two years as medical department dietitian in the Army of the United States.

Recipes the food editor and home economist might recommend to homemakers on the basis of ease of preparation and delicious results are the ones included in "So Easy Recipes—and So Good, Too," says Katherine R. Smith, director of the home economics division of the National Canners Association. It is free to home economists and food editors. Besides 121 recipes plus variations, the book provides a chart giving the weight and measure of food in cans and jars of common sizes. Requests for the 48-page book may be addressed to Home Economics Division, National Canners Association, 1133 Twentieth Street, N.W., Washington 6, D. C.

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"Kitchen-Laundry Design Ideas," a 48-page illustrated booklet by Westinghouse, provides home owners, builders, planners, architects, and home economists with a simplified procedure for discovering the most efficient arrangement of equipment in the spaces allowed. The diagrams, dimension drawings, and illustrations of well-planned rooms, as well as the section of wiring and lighting suggestions and technical data about wiring, give the booklet added practical value. Single copies may be obtained by sending 50 cents to the Better Homes Bureau, Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

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A fiber fact chart on rayon, acetate, nylon, "Orlon" acrylic fiber, and "Dacron" polyester fiber is available free from the E. I. du Pont de Nemours & Company along with a pamphlet which tells the history and manufacturing process of each. [Write to the Product Information Section, Textile Fibers Department, Du Pont Company, Wilmington 98, Delaware.] The chart, with its listings of end-uses, properties, and recommended care for each fiber, is intended to help the consumer compare and understand how to use each most satisfactorily.

An innovation in the educational program of the Celanese Corporation of America this year is a portable exhibit which may be requested for use by home economics groups from Eloise Voss [Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y.]. When requesting the exhibit, state whether the group

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of fabrics labeled Celaperm is desired or whether the other group—containing jacquard satin used by Designer Carolyn Schnurer, a knubby suiting, a printed knit fabric, and a rib roll crepe—is the group you wish to display.

The exhibit consists of a vertical pole mounted with an attractive color print. The user easily attaches four arms to the pole and then drapes six three-yard lengths of fabric over the arms.

A fitted sewing box with removable tray is suggested by the Singer Sewing Machine Co. as the logical Christmas present for persons who sew. It is a strong box with snap lock of simulated leather which comes in gray or ivory color and is equipped with 11 spools of thread plus thimble and needles. It is available at Singer Sewing Centers.

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A "matched pair," consisting of automatic washer and dryer, is being featured by the Easy Washing Machine Corporation this fall. One way in which both pieces match is that each has two automatic cycles—one suited to "regular fabrics" and the other to "fine fabrics." The dryer has a "low temperature, high airflow" system, says the manufacturer, and may be had in either the gas or electric model.

Better Light Better Sight News, a bimonthly periodical, brings information on lighting in schools, homes, offices, and industry. Subscription price is $1 per year for six issues, and the publisher is the Better Light Better Sight Bureau [420 Lexington Avenue, New York 17, N. Y.], an organization whose function is to spread knowledge of the benefits of adequate lighting as an important element in eye health and comfort.

Aid in teaching gel cookery units in foods classes is supplied by the colorfully illustrated wall chart available to teachers on request from the Knox Educational Bureau [655 Chestnut Street, Johnstown, New York]. On

AHEA's Membership Goal
10 Per Cent More in '53-'54

it the principal kinds of gelatin desserts are defined and attractively illustrated. To use with the chart, student folders containing many recipes keyed to the principles given on the chart may be requested in quantity. "Whipped Desserts" is the title of both.

A 12-page teacher's manual, "In the Classroom with Carnation," is this fall's offering of the Carnation Company available upon request. [Address request to Mary Blake, Dept. B-113, Carnation Company, Los Angeles 36, California.] The illustrated manual discusses various forms of milk and nutrition and provides tested recipes and ideas for classroom demonstrations. A companion piece, "Using Evaporated Milk in the Classroom and Kitchen," Lesson 3-B, may be requested in the quantity needed for students.

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